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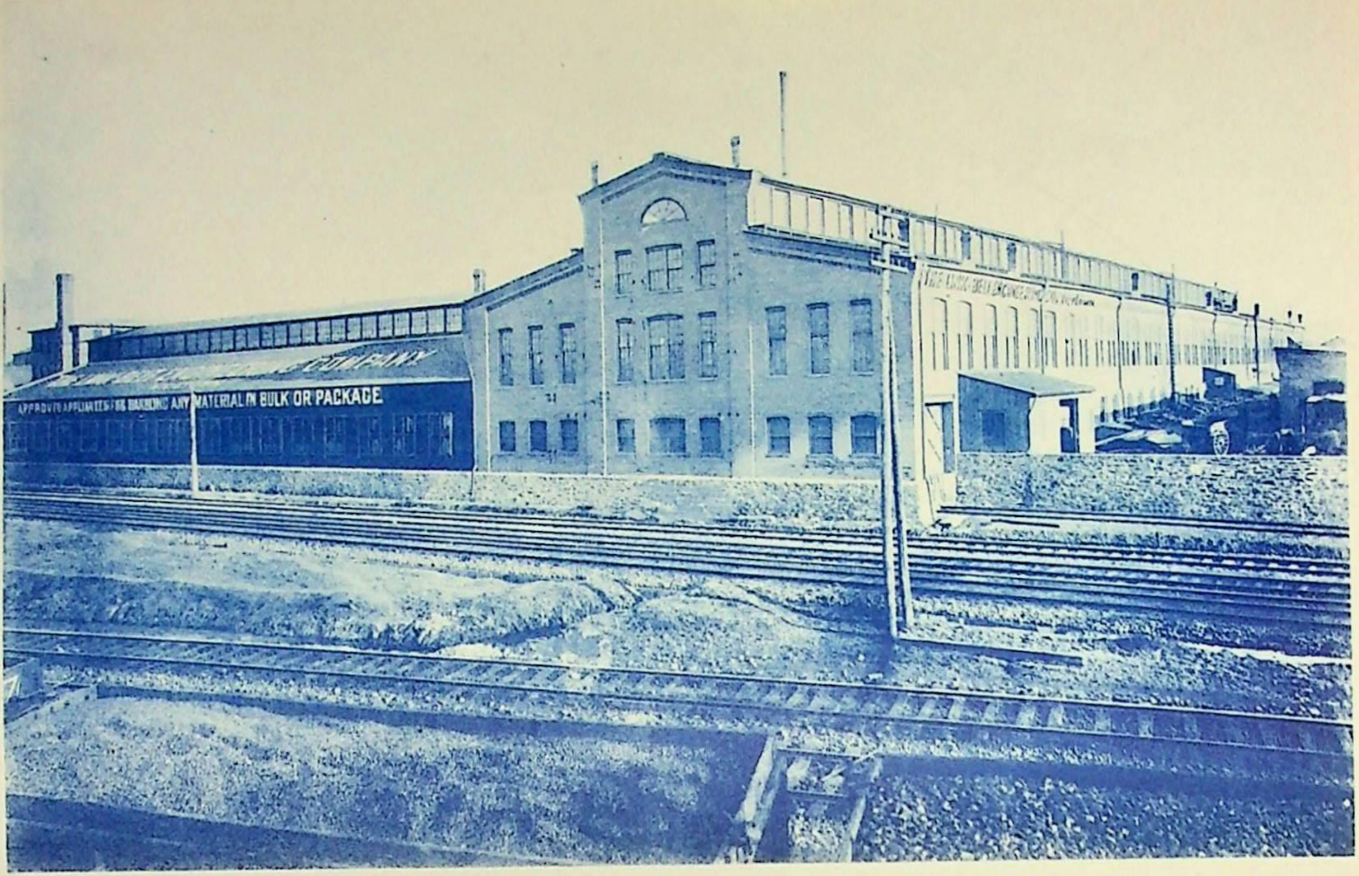
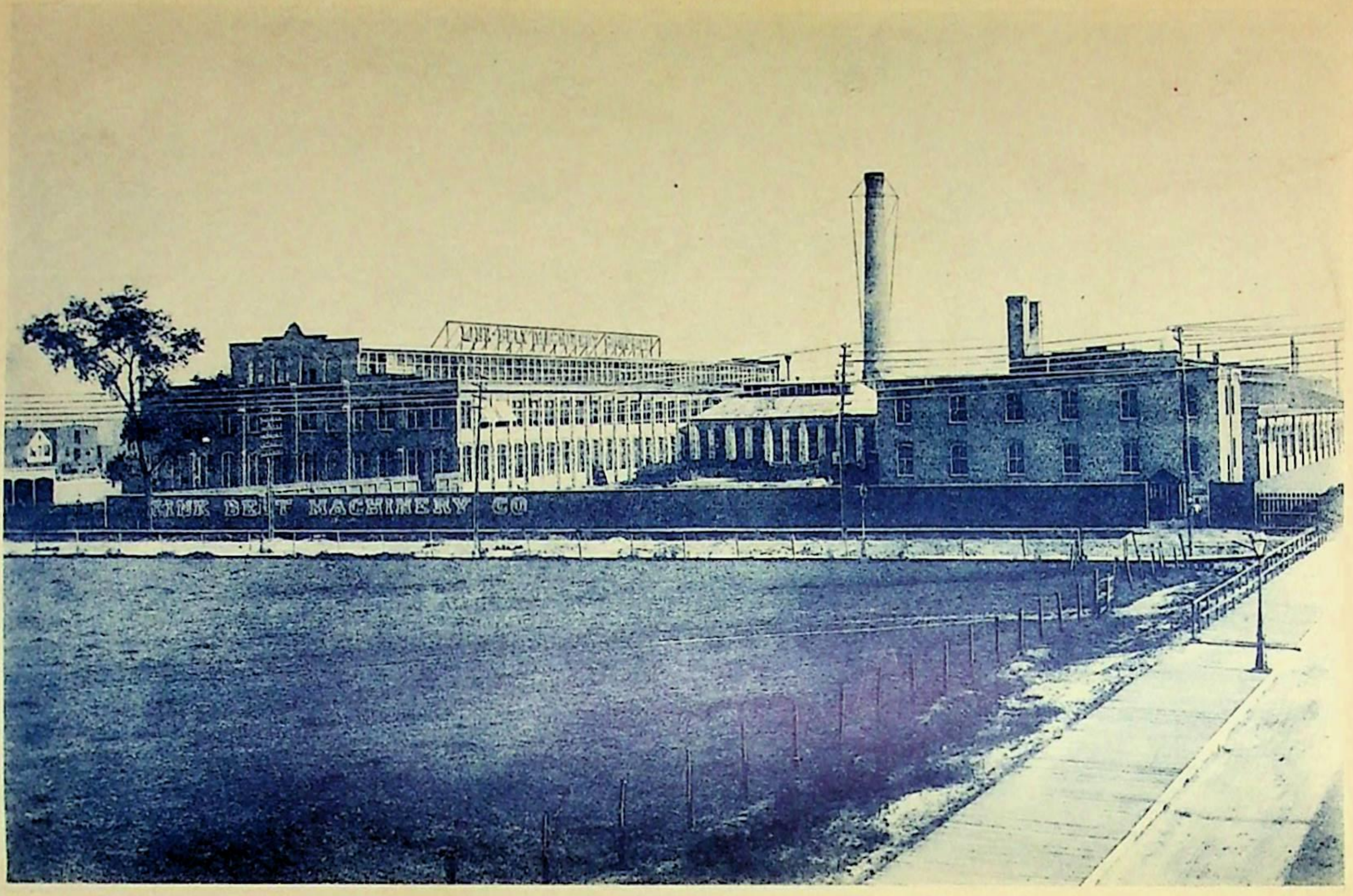

COMPANY
APPROVED APPLIANCES FOR HANDLING ANY MATERIAL IN BULK OR PACKAGE

WORKS OF THE LINK-BELT ENGINEERING CO.,
(NICETOWN), PHILADELPHIA.



WORKS OF THE LINK-BELT MACHINERY CO.,
CHICAGO, ILL.

WILLIAM D. EWART, President
FRANK I. PEARCE, Vice-Pres't and Gen'l Sup't
ARTHUR D. DANA, Treasurer

STAUNTON B. PECK, Chief Engineer
GEO. S. MIDDLEBROOK, Secretary
EDWARD G. EWART, Ass't Secretary

SEP 19 1997

APPROVED ELEVATING AND CONVEYING APPLIANCES

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63,715

THE LINK-BELT MACHINERY COMPANY
39TH STREET AND STEWART AVENUE
CHICAGO, ILL.

1892

Eastern Connection
THE LINK-BELT ENGINEERING COMPANY
PHILADELPHIA AND NEW YORK

Cable Address
LINKBELT

TJ
1353
.L5

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THE LINK-BELT MACHINERY COMPANY
Chicago, Ill.

Registered Trade Mark
LINK-BELT

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APR 17 1893
U. S. PATENT OFFICE.

Introduction

PERUSAL of this Catalogue will show that the improvements we have made, in systems and in details, have been commensurate with the possibilities in our lines of Engineering and Manufacture, and our endeavor in the future will be to maintain our position as pioneers and originators in the field of link-belt engineering.

It is not possible to make complete presentation, in a Catalogue, of all our appliances and installations. We have large numbers of photographs of our machinery and plants, selections from which will be mailed on application.

In our manufacturing departments we have kept pace with the times, and by extensions of our plants and the introduction of improved machinery, are in a position to fill all orders promptly.

Many improvements have been made in the details of our system of power transmission, by means of manila rope, which, when designed and erected by our engineers, thoroughly conversant with the subject, have given such satisfaction that their good qualities are rapidly bringing them into general use

WE have One Thousand Photographic Views of our machinery actual operation, handling many varieties of material. Prints fro those meeting especial requirements will be mailed upon request.

Partial List of Views

FLOUR AND GRAIN

Grain Elevators
Ear Corn Elevators
Grain Conveyors
Barrel Elevators
Barrel Transfers
Manila Rope Drives

SAW AND LUMBER MILLS

Log Hauls
Slab Slashers
Lumber Trimmers
Live Rolls
Transfers
Offal Conveyors
Lumber Sorters
Lumber Pilers

BREWERS AND DISTILLERS

Grain Elevators
Grain Conveyors
Keg Elevators
Barrel Elevators
Barrel Transfers
Bottle Conveyors
Box Conveyors
Coal Conveyors
Rope Drives

BLAST FURNACES

Car Hauls
Ore Elevators
Ore Conveyors
Coal Conveyors
Coal Elevators

PAPER AND PULP MILLS

Log Hauls
Block and Chip Conveyors
Chip Elevators
Coal Conveyors
Bark Conveyors

COAL MINERS AND HANDLERS

Car Hauls
Coal Conveyors
Coal Elevators
Culm Bank Conveyors
Locomotive Coaling Stations
Coal Storage Plants

TANNERS

Rough Bark Conveyors
Ground Bark Conveyors
Ground Bark Elevators
Hide Reels
Hide Conveyors
Hide Elevators

ROLLING MILLS AND STEEL PLANTS

Skelp Transfers
Skelp Car Loaders
Billet Conveyors
Coal Conveyors
Coal Elevators
Hot Spike Conveyors
Rope Drives

BRICK AND TILE MANUFACTURERS

Clay Conveyors
Clay Elevators
Tile Elevators
Water Elevators
Rope Drives

WAREHOUSE COMPANIES

Barrel Elevators
Barrel Transfers
Sack Elevators
Freight Conveyors
Rope Drives
Coal Elevators
Coal Conveyors

We have a large number of Miscellaneous Views, and can send you photographs Conveyors and Elevators adapted to handle any material.

The Link=Belt Machinery Co.

MANUFACTURE COMPLETE LINES OF

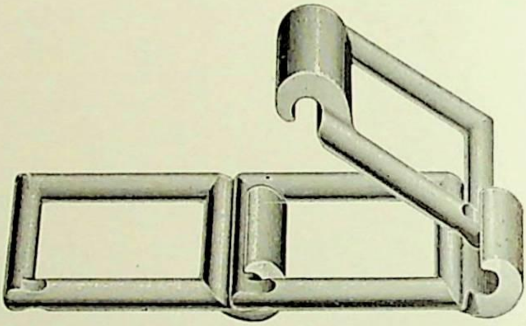
Automatic Labor Economizing Machinery for Handling any Material in Bulk or Package

Among the more important exclusive specialties are:

The Original Ewart Detachable Link-Belting
The Dodge Bearing Block Cable Chain
The Howe Bull Chain
Tubular Chain
Giant Chain
Vulcan Conveyor Chain
Block Chain
"500" Transfer Chain
"550" Sawdust Conveyor Chain
Differential Pitch Sprocket Wheels
Dodge Removable Tooth Sprocket Wheels
Dodge Traction Wheels
The "Link-Belt" Safety Elevator Boot
"Link-Belt" Sheaves and Idlers for Manila Rope Power Transmission
The "Link-Belt" Disk Friction Clutch
"Link-Belt" Take-ups
The "Link-Belt" Drop-Forged Steel Conveyor Trough
The Dodge Drop-Forged Curved Conveyor Flights
The "Link-Belt" Safety Collars
The Dodge Conveyor Trough Discharge Gates
"Link-Belt" Elevator Buckets
Automatic Discharge Barrel Elevators (eight designs)
"Link-Belt" Horizontal Freight Carriers
"Link-Belt" Beer Barrel and Keg Elevators
Perfect Discharge Elevators
Gravity Discharge Elevators
"Little Giant" Dock Leg Elevators
"Link-Belt" Ice Elevators
Single and Double Endless Trough Conveyors
"Link-Belt" Inclined Rock Elevators
"Link-Belt" Table and Apron Conveyors
"Link-Belt" Freight Elevators
"Link-Belt" Tray Elevators
Continuous Moulding Installations (Welsh & Dodge Patents)
Emery Lumber Trimmers and Slab Slashers

Purchasers are cautioned to satisfy themselves that goods of the foregoing classes offered to them by others do not infringe our patents, of which we have eighty-one in force, maintained for our own protection, but not for the purpose of exacting tributes from our patrons.

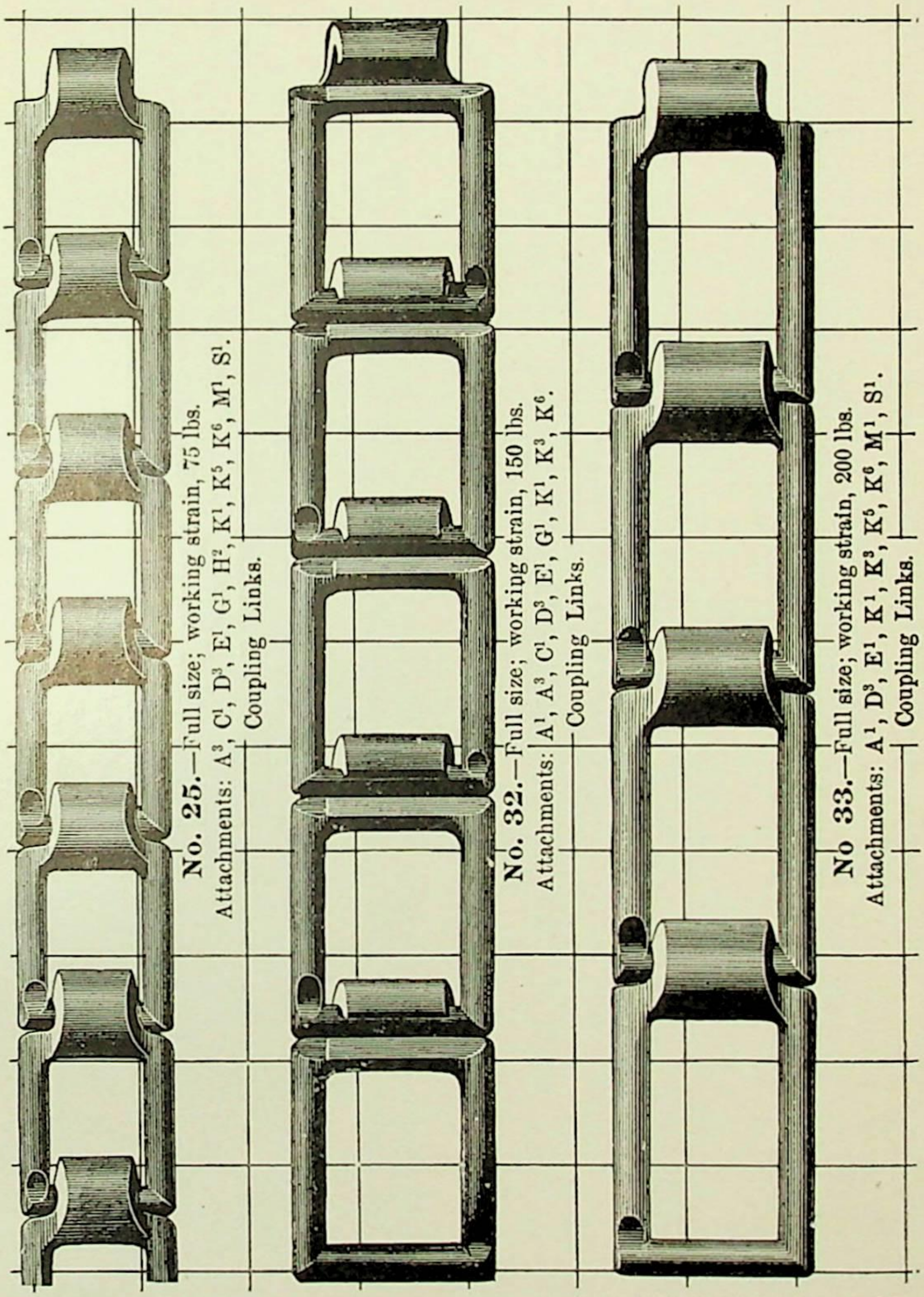
Ewart Detachable Link-Belting



THE ORIGINAL EWART DETACHABLE LINK-BELTING IS MADE O REFINED MALLEABLE IRON, IS ACCURATELY PITCHED, AND SUBJECTE TO STATIC AND RUNNING TESTS BEFORE LEAVING THE FACTORY.

FOR PRICE LIST SEE PAGE 40.

Original Ewart Detachable Link Belting.



No. 25.—Full size; working strain, 75 lbs.
Attachments: A^3, C^1, D^3, E^1, G^1, H^2, K^1, K^5, K^6, M^1, S^1.
Coupling Links.

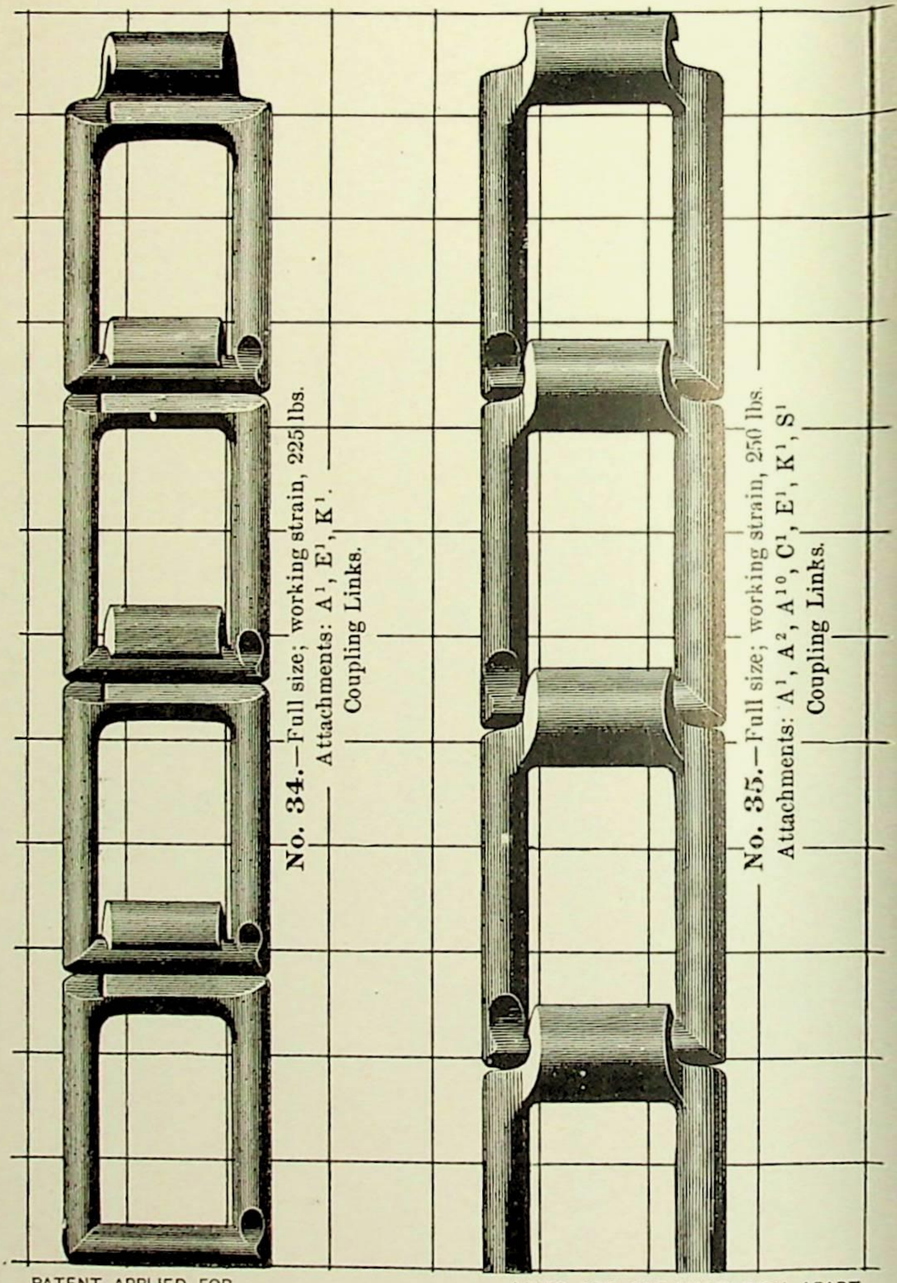
No. 32.—Full size; working strain, 150 lbs.
Attachments: A^1, A^3, C^1, D^3, E^1, G^1, K^1, K^3, K^6.
Coupling Links.

No 33.—Full size; working strain, 200 lbs.
Attachments: A^1, D^3, E^1, K^1, K^3, K^5, K^6, M^1, S^1.
Coupling Links.

PATENT APPLIED FOR.

LINES ARE ONE-HALF INCH APART.

CHICAGO

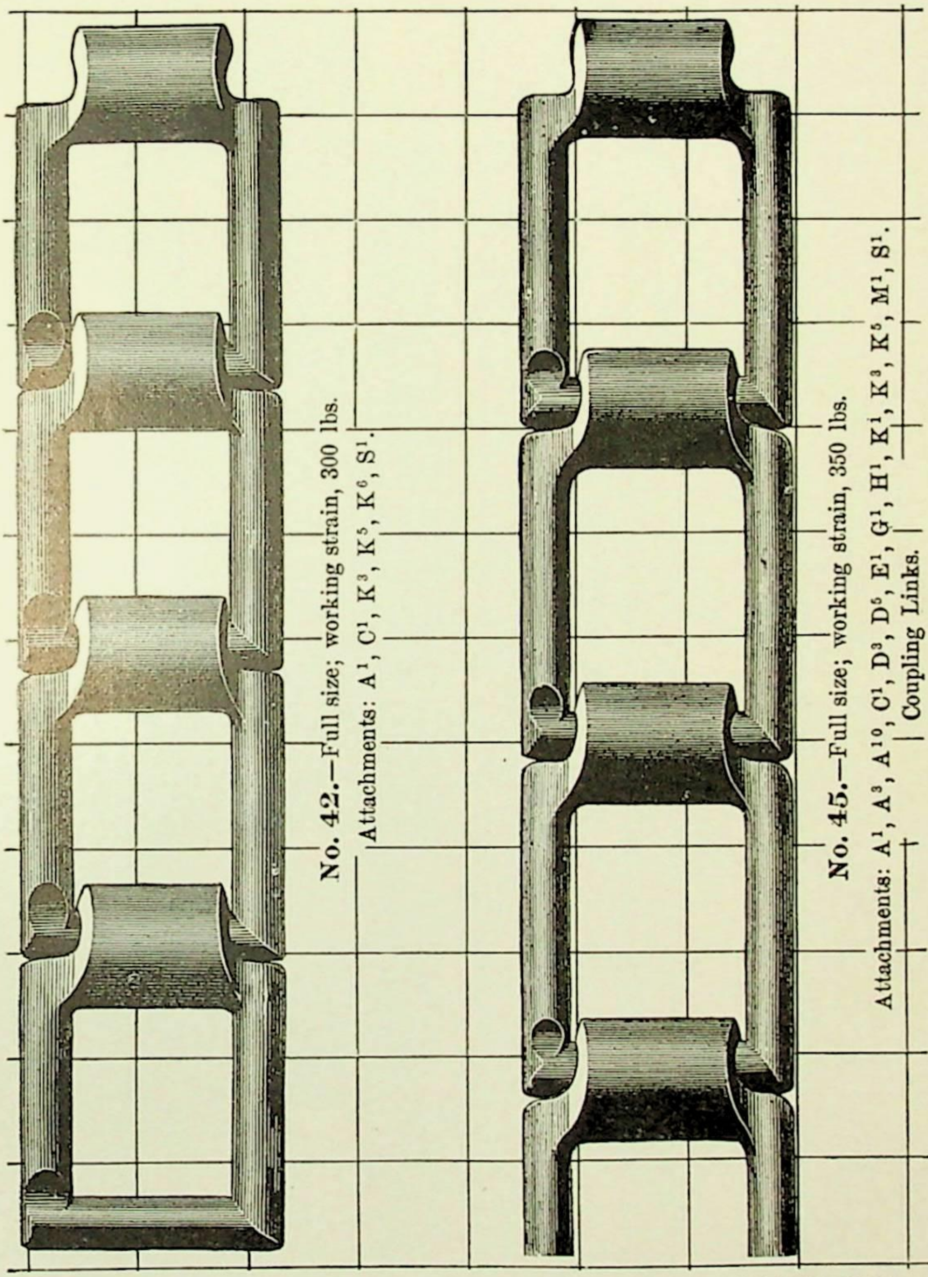


No. 34.—Full size; working strain, 225 lbs.
Attachments: A^1, E^1, K^1.
Coupling Links.

No. 35.—Full size; working strain, 250 lbs.
Attachments: A^1, A^2, A^{10}, C^1, E^1, K^1, S^1
Coupling Links.

PATENT APPLIED FOR.

LINES ARE ONE-HALF INCH APART.

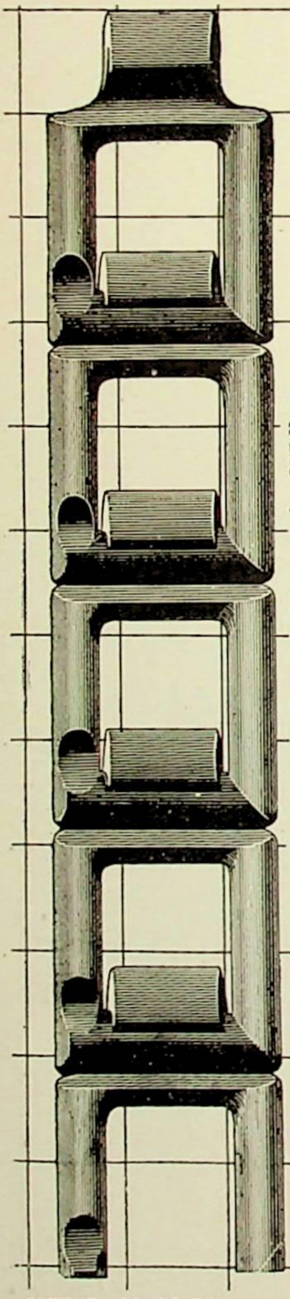


No. 42.—Full size; working strain, 300 lbs.
Attachments: A^1, C^1, K^3, K^5, K^6, S^1.

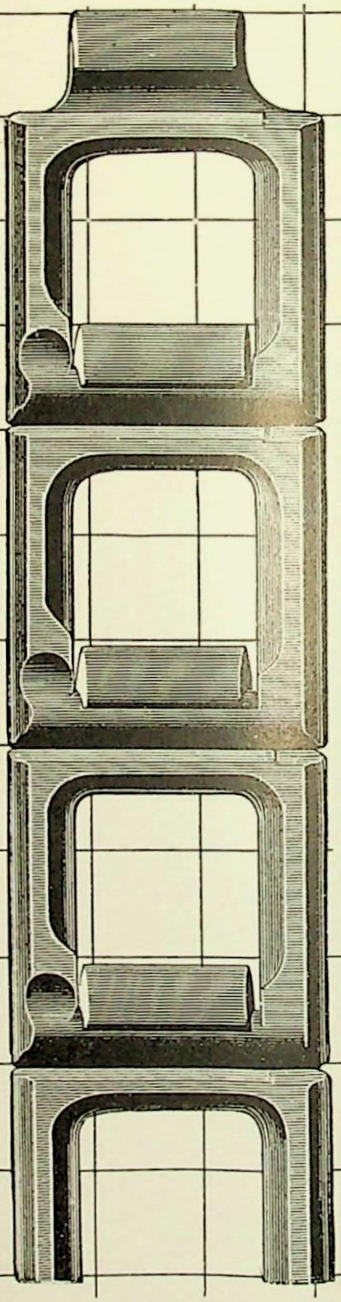
No. 45.—Full size; working strain, 350 lbs.
Attachments: A^1, A^3, A^{10}, C^1, D^3, D^5, E^1, G^1, H^1, K^1, K^3, K^5, M^1, S^1.
Coupling Links.

PATENT APPLIED FOR.

LINES ARE ONE-HALF INCH APART.



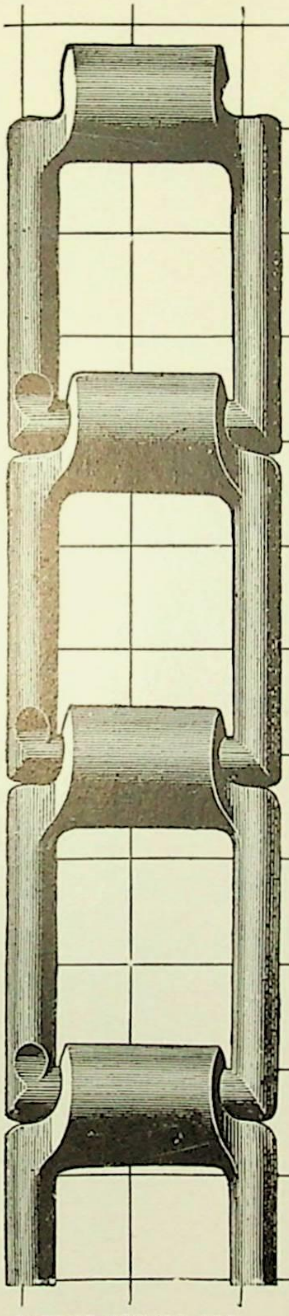
No. 51.—Full size; working strain, 375 lbs.
Attachments: $A^1\ K^1\ K^5\ S^1$.



No. 52.—Full size; working strain, 500 lbs.
Attachments: $A^1\ A^3\ D^3\ E^1\ G^1\ K^5$.
Now made with Round Side Bars.

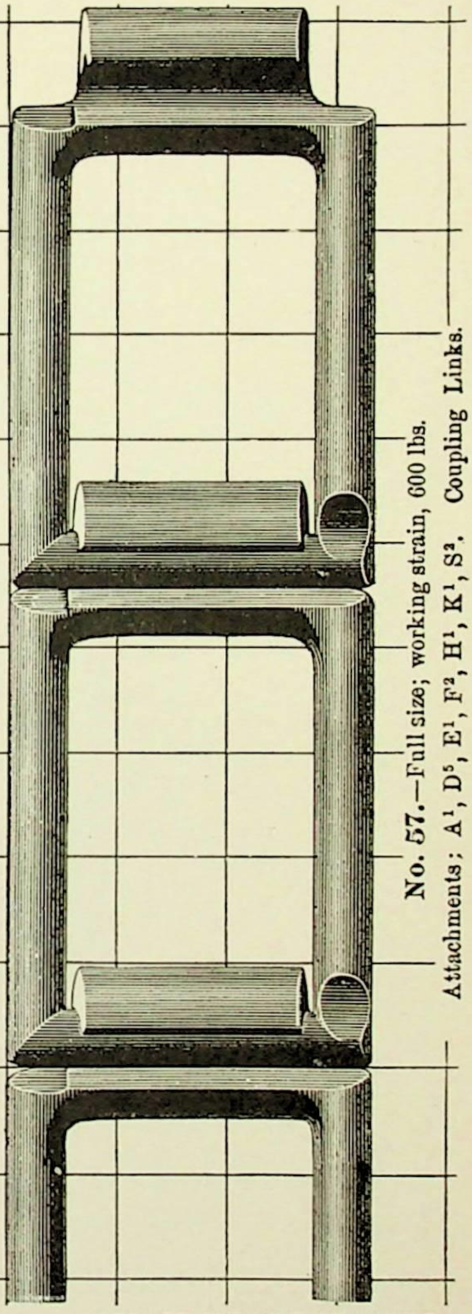
PATENT APPLIED FOR.

LINES ARE ONE-HALF INCH APART



No. 55.—Full size; working strain, 450 lbs.

Attachments: A^1, A^2, C^1, E^1, F^2 K^1, M^1, S^1. Coupling Links.

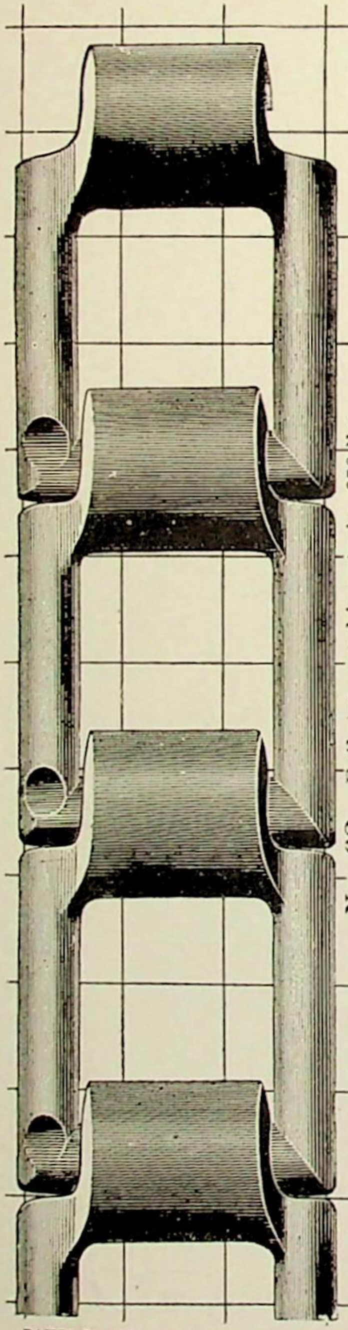


No. 57.—Full size; working strain, 600 lbs.

Attachments; A^1, D^5, E^1, F^2, H^1, K^1, S^2. Coupling Links.

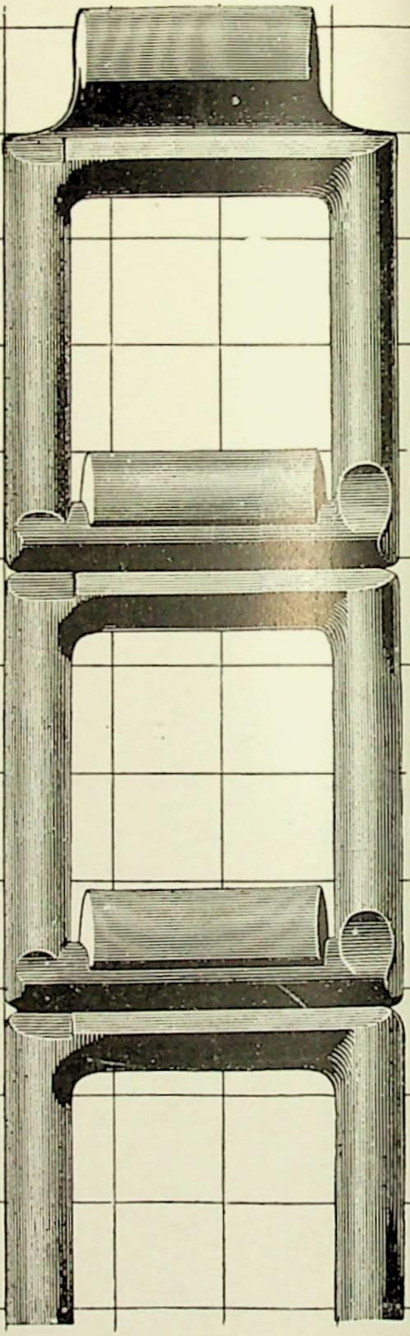
PATENT APPLIED FOR.

LINES ARE ONE-HALF INCH APART.



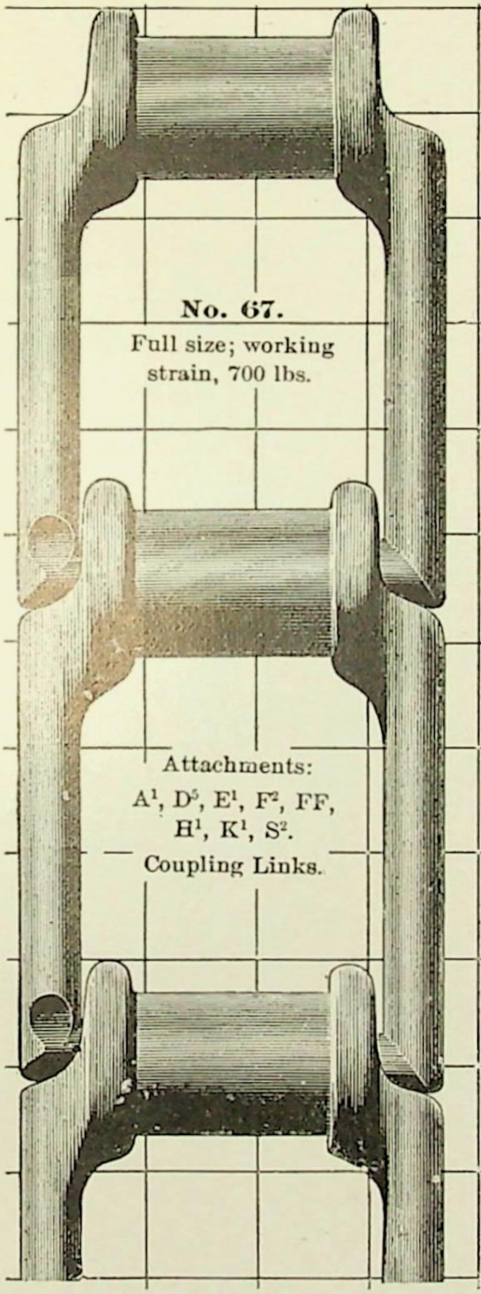
No. 62.—Full size; working strain, 650 lbs.
Attachments: A^1, A^3, C^1, D^5, K^1, K^5. Coupling Links.

PATENT APPLIED FOR.



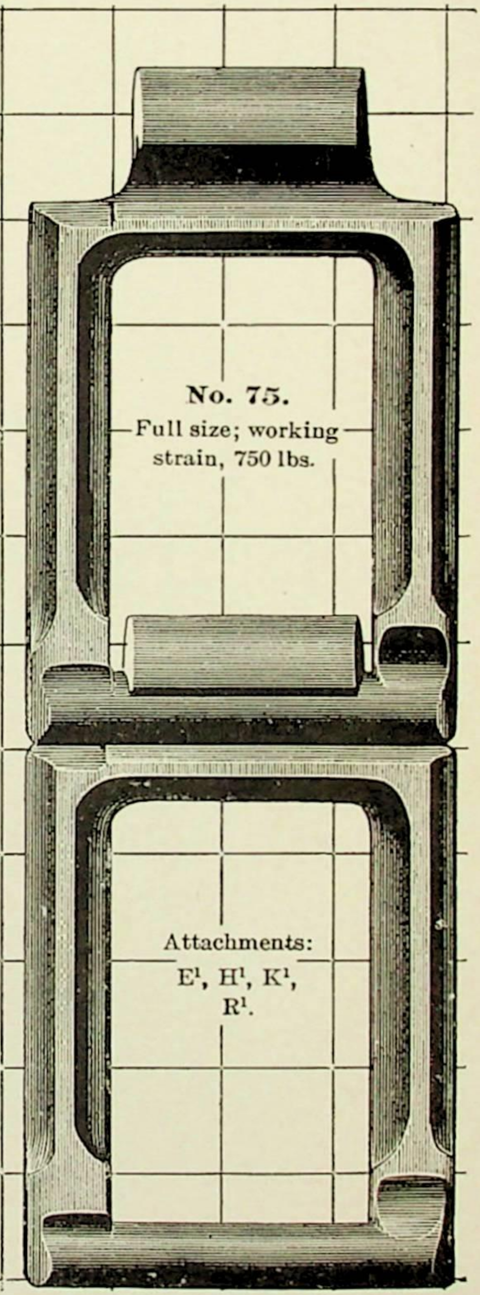
No. 66.—Full size; working strain, 700 lbs.
Attachments, C^1. Coupling Links.

LINES ARE ONE-HALF INCH APART.



No. 67.
Full size; working strain, 700 lbs.

Attachments:
A^1, D^5, E^1, F^2, FF, H^1, K^1, S^2.
Coupling Links.

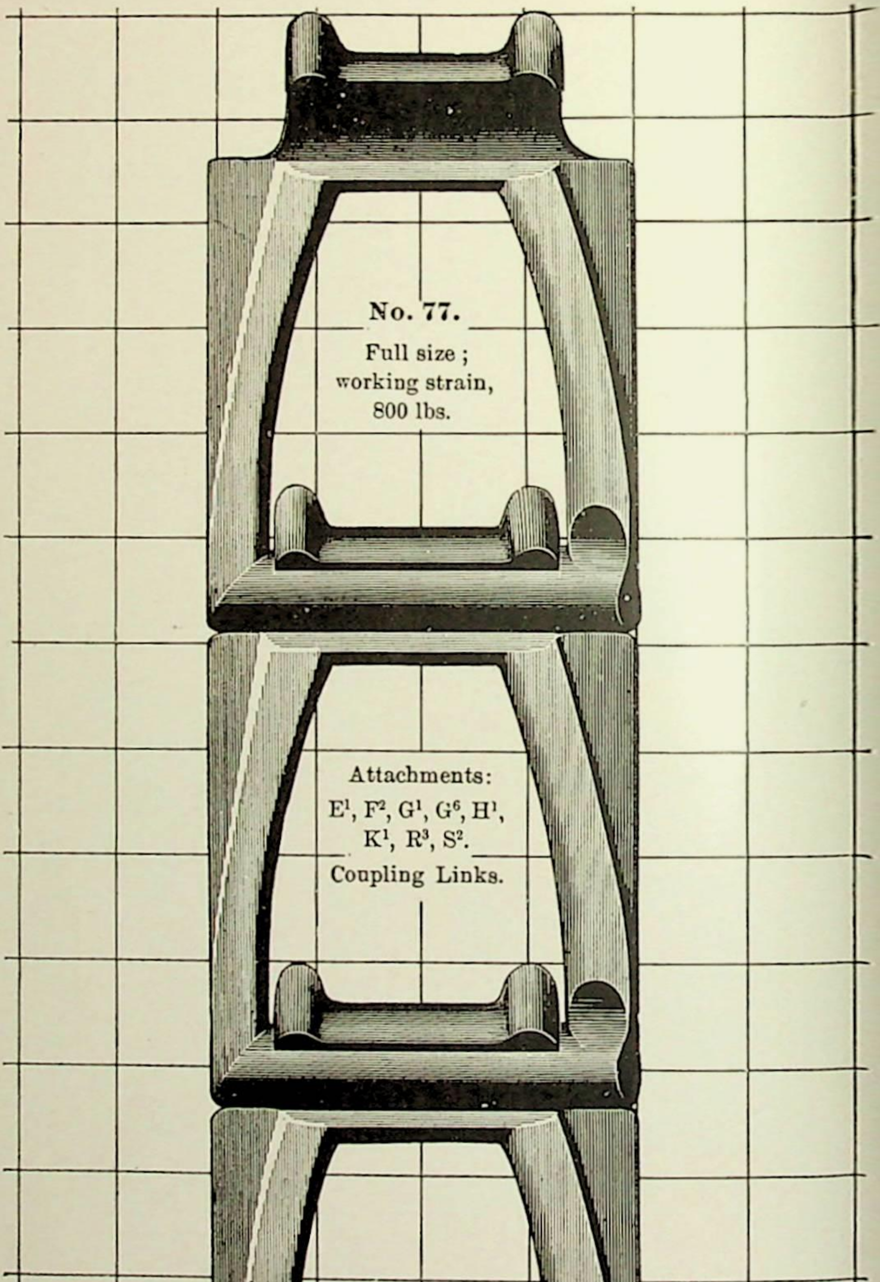


No. 75.
Full size; working strain, 750 lbs.

Attachments:
E^1, H^1, K^1, R^1.

PATENT APPLIED FOR.

LINES ARE ONE-HALF INCH APART.



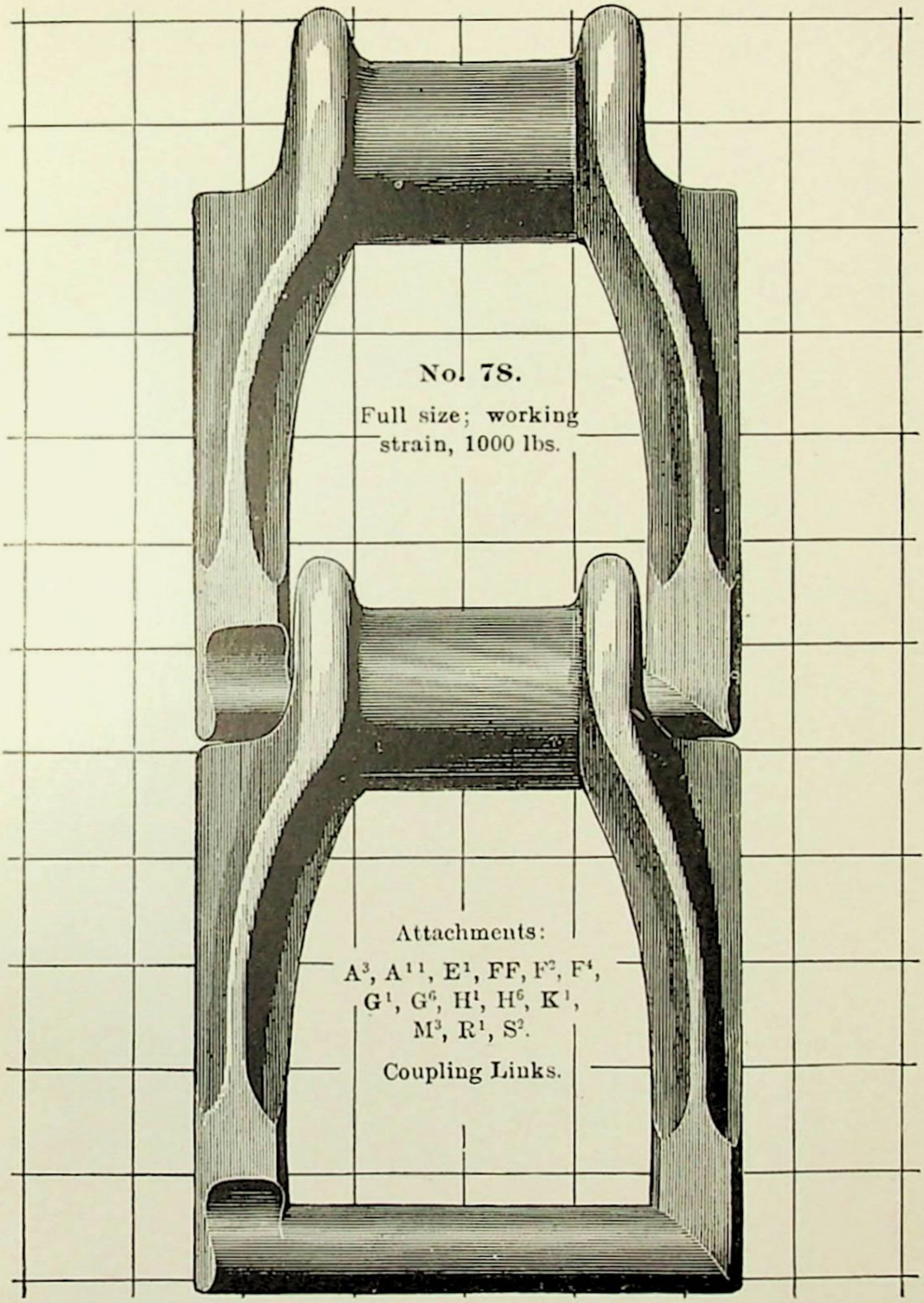
No. 77.

Full size;
working strain,
800 lbs.

Attachments:
E^1, F^2, G^1, G^6, H^1,
K^1, R^3, S^2.
Coupling Links.

PATENT APPLIED FOR.

LINES ARE ONE-HALF INCH APART.



No. 78.

Full size; working strain, 1000 lbs.

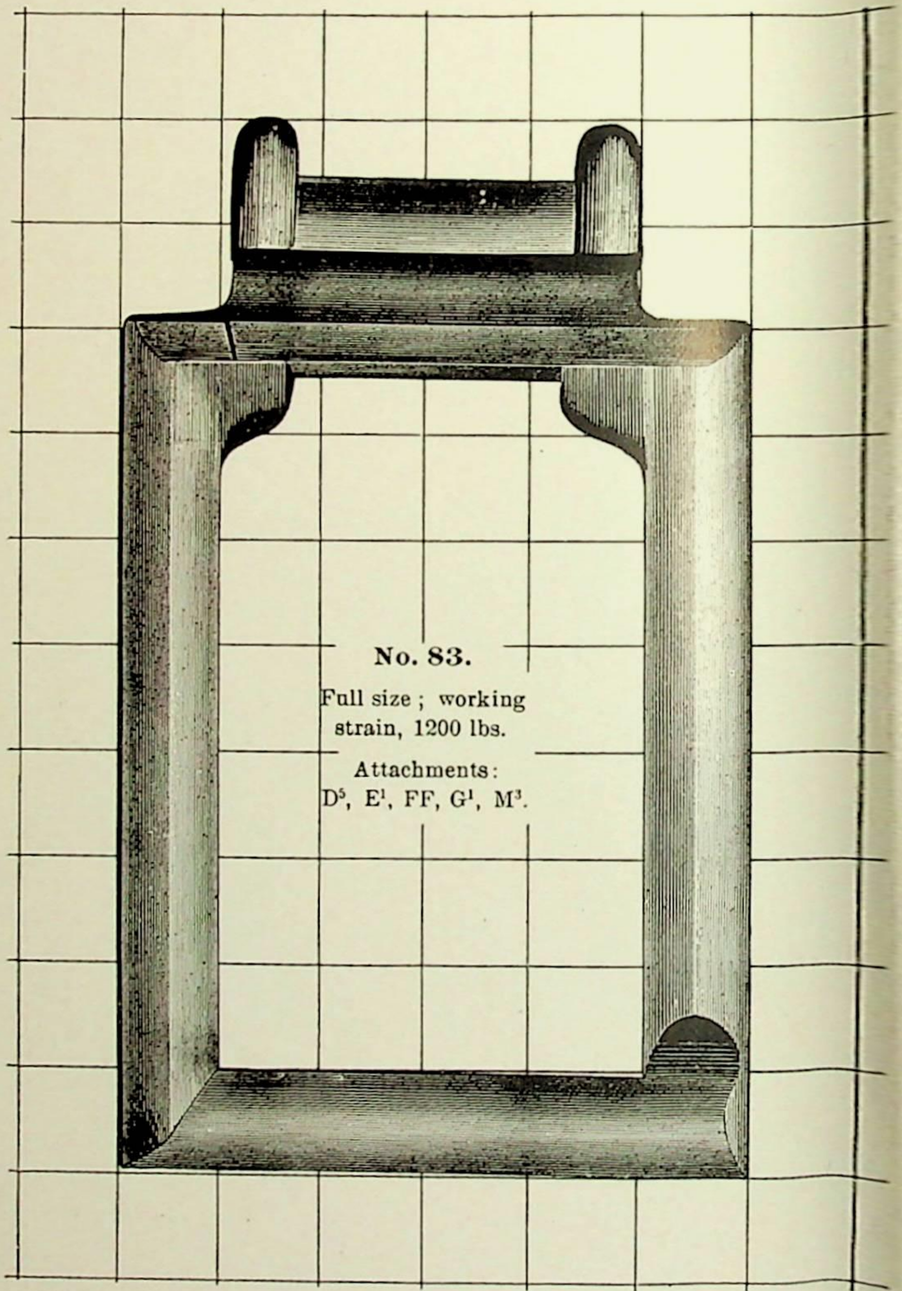
Attachments:

A^3, A^{11}, E^1, FF, F^2, F^4, G^1, G^6, H^1, H^6, K^1, M^3, R^1, S^2.

Coupling Links.

PATENT APPLIED FOR.

LINES ARE ONE-HALF INCH APART.



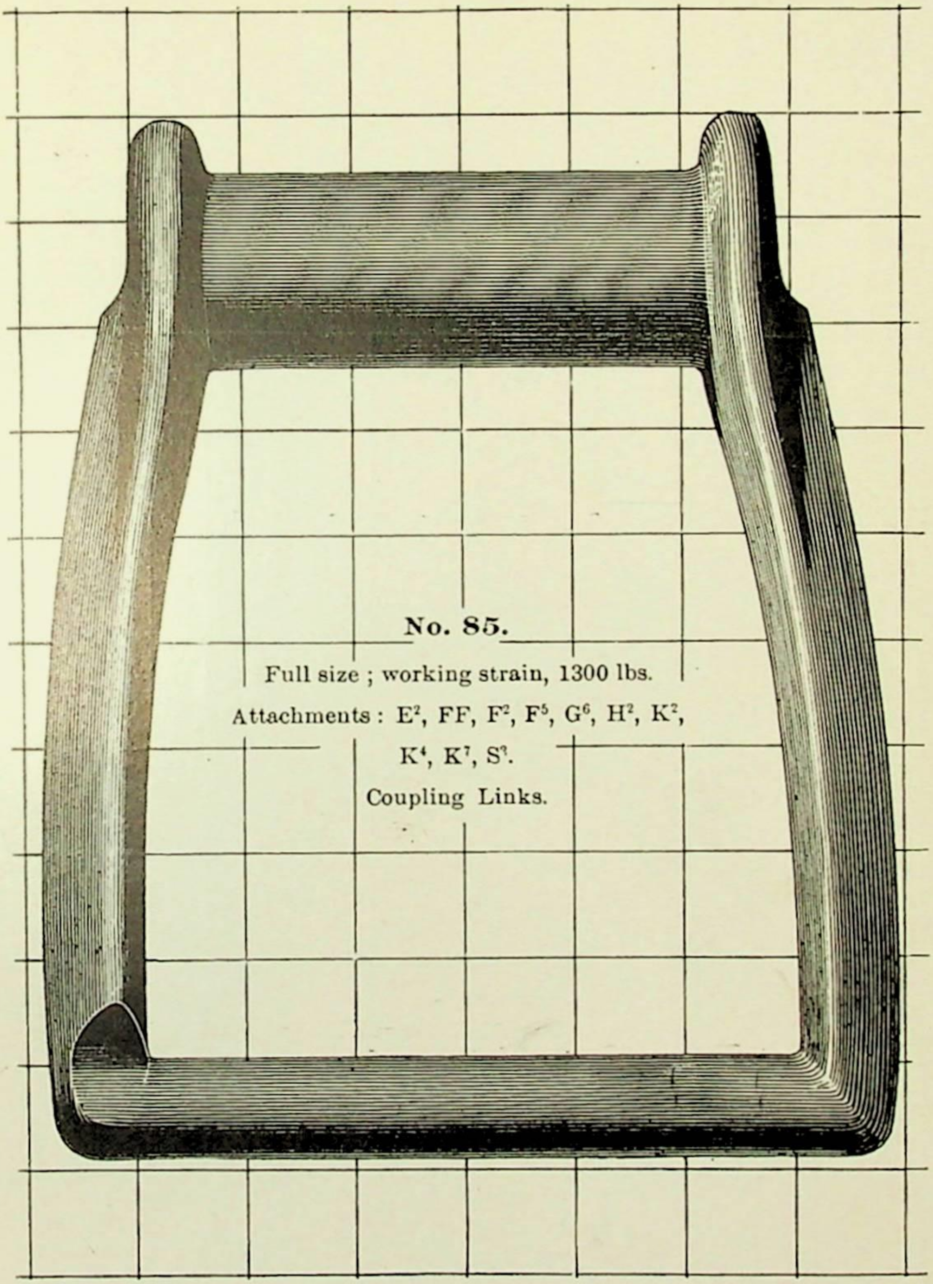
No. 83.

Full size; working strain, 1200 lbs.

Attachments: D^5, E^1, FF, G^1, M^3.

PATENT APPLIED FOR.

LINES ARE ONE-HALF INCH APART.



No. 85.

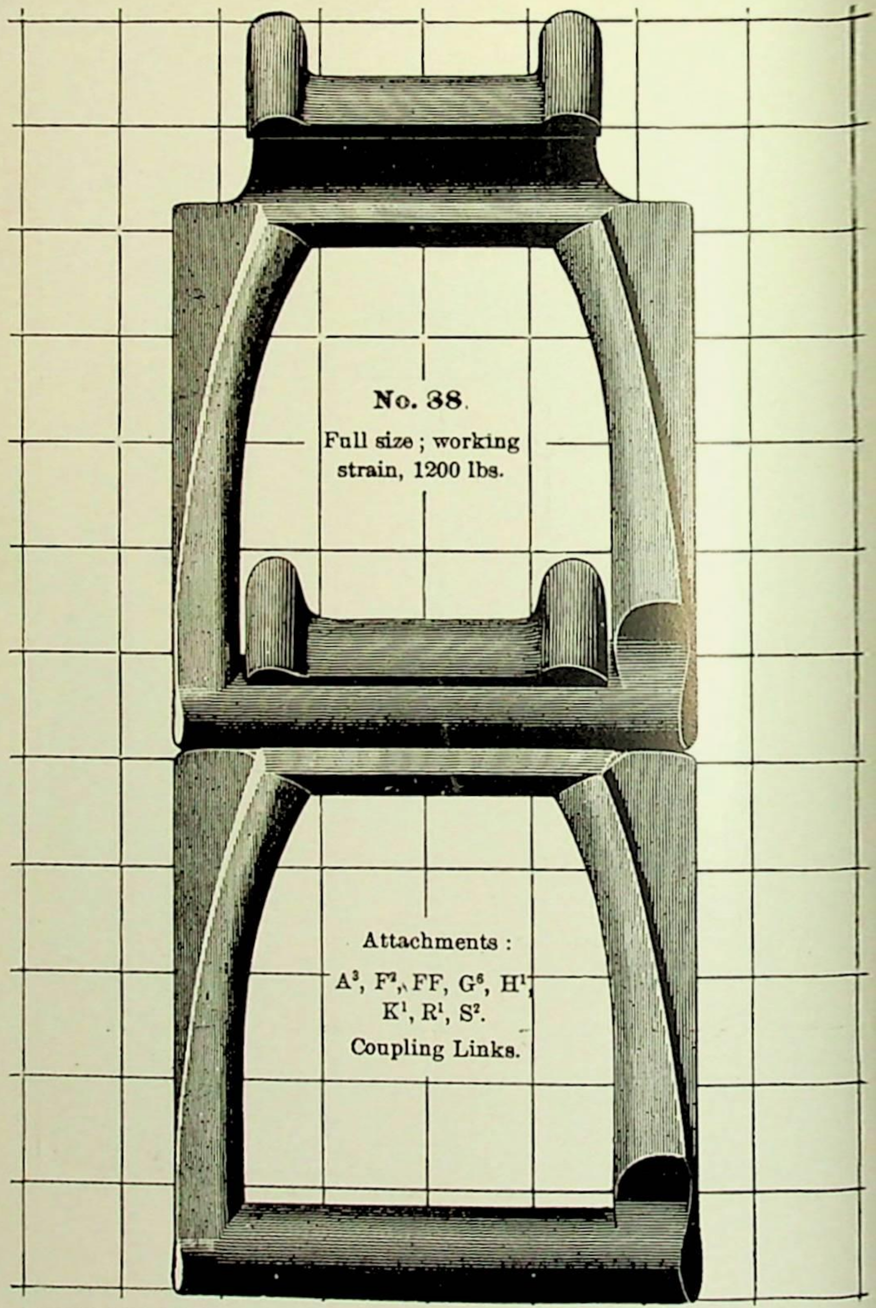
Full size ; working strain, 1300 lbs.

Attachments : E², FF, F², F⁵, G⁶, H², K², K⁴, K⁷, S².

Coupling Links.

PATENT APPLIED FOR.

LINES ARE ONE-HALF INCH APART.



No. 38.

Full size; working strain, 1200 lbs.

Attachments:

A^3, F^2, FF, G^6, H^1, K^1, R^1, S^2.

Coupling Links.

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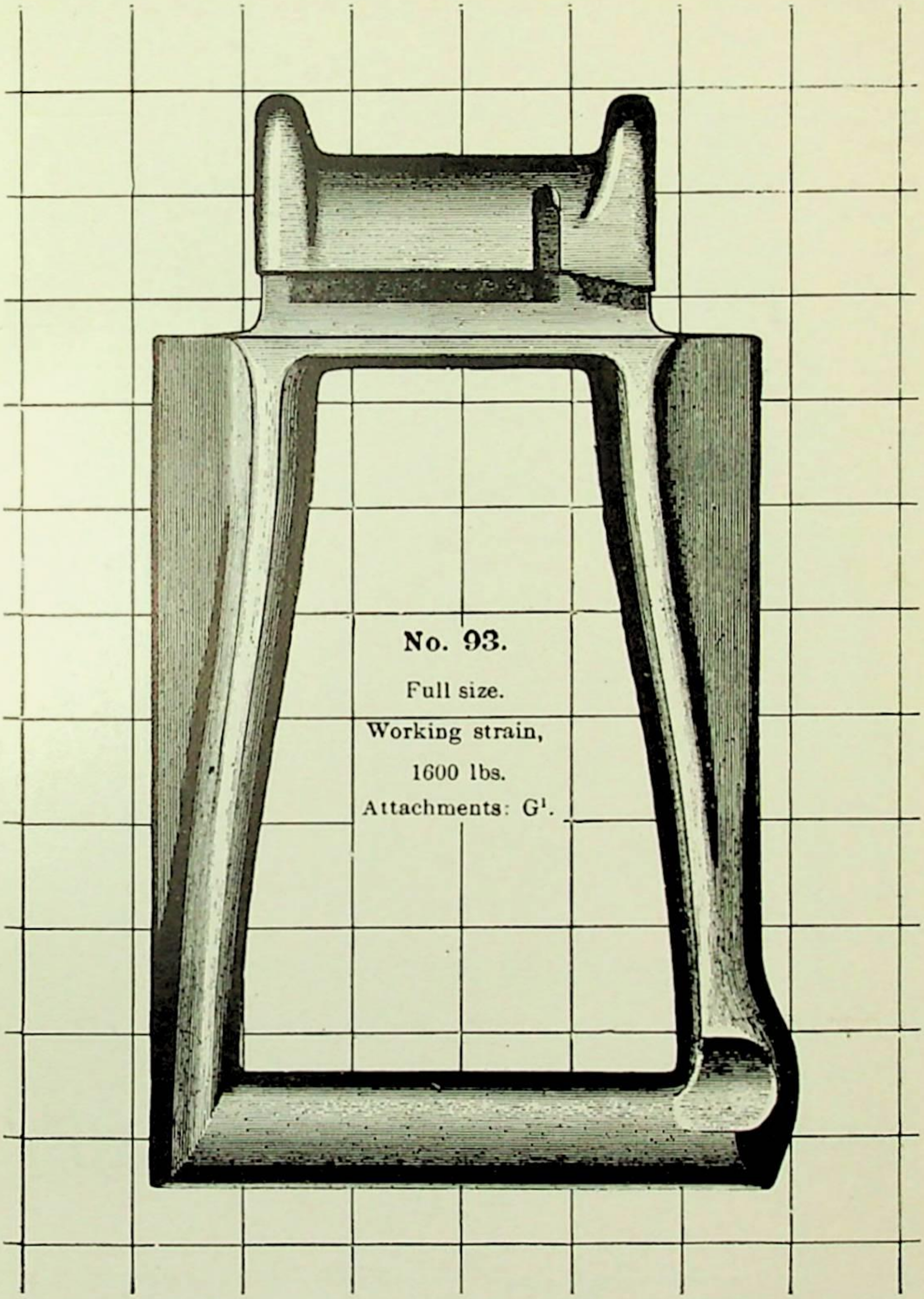
LINES ARE ONE-HALF INCH APART.



No. 93.

Full size.

Working strain,
1600 lbs.

Attachments: G[1].

PATENT APPLIED FOR.

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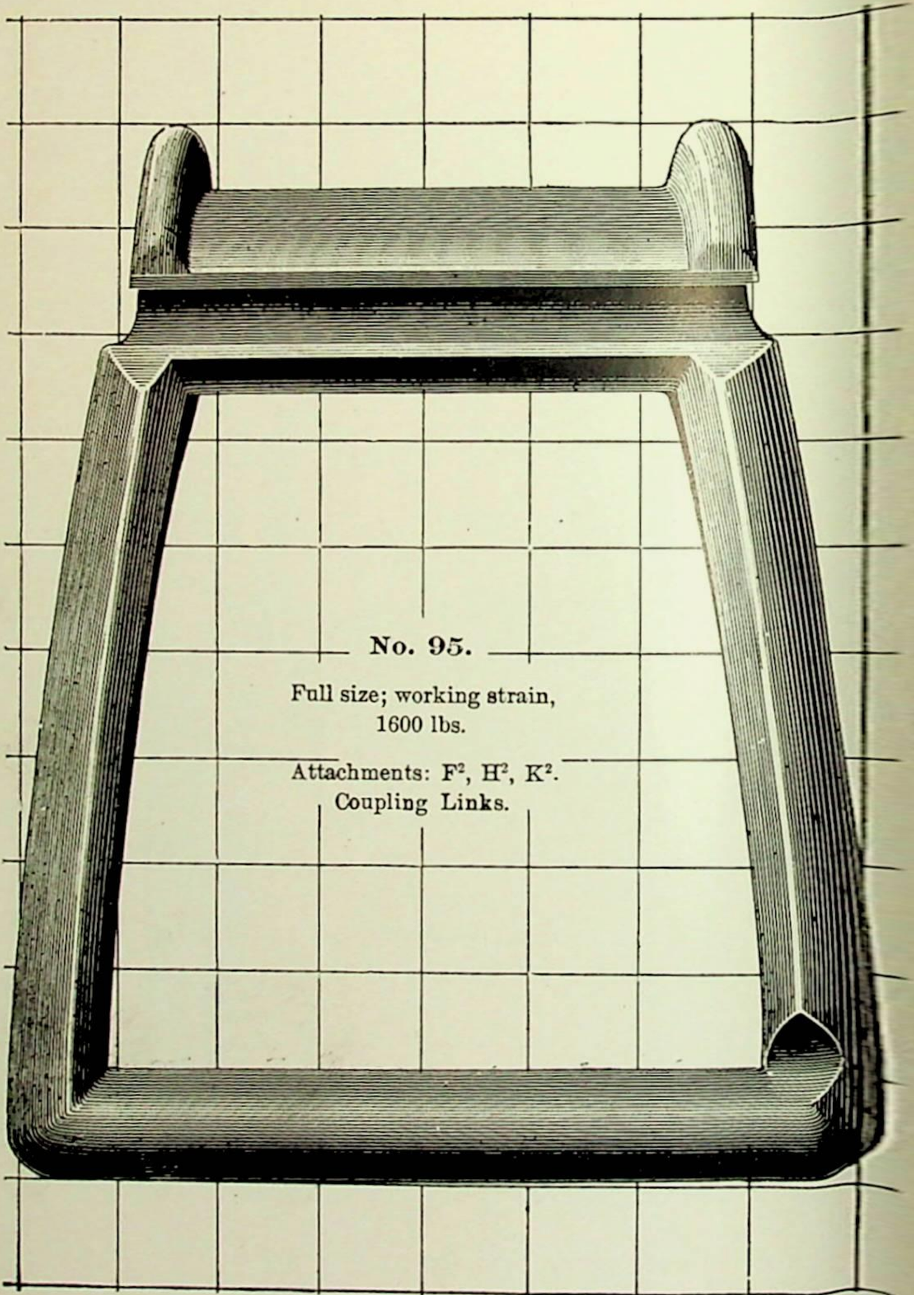


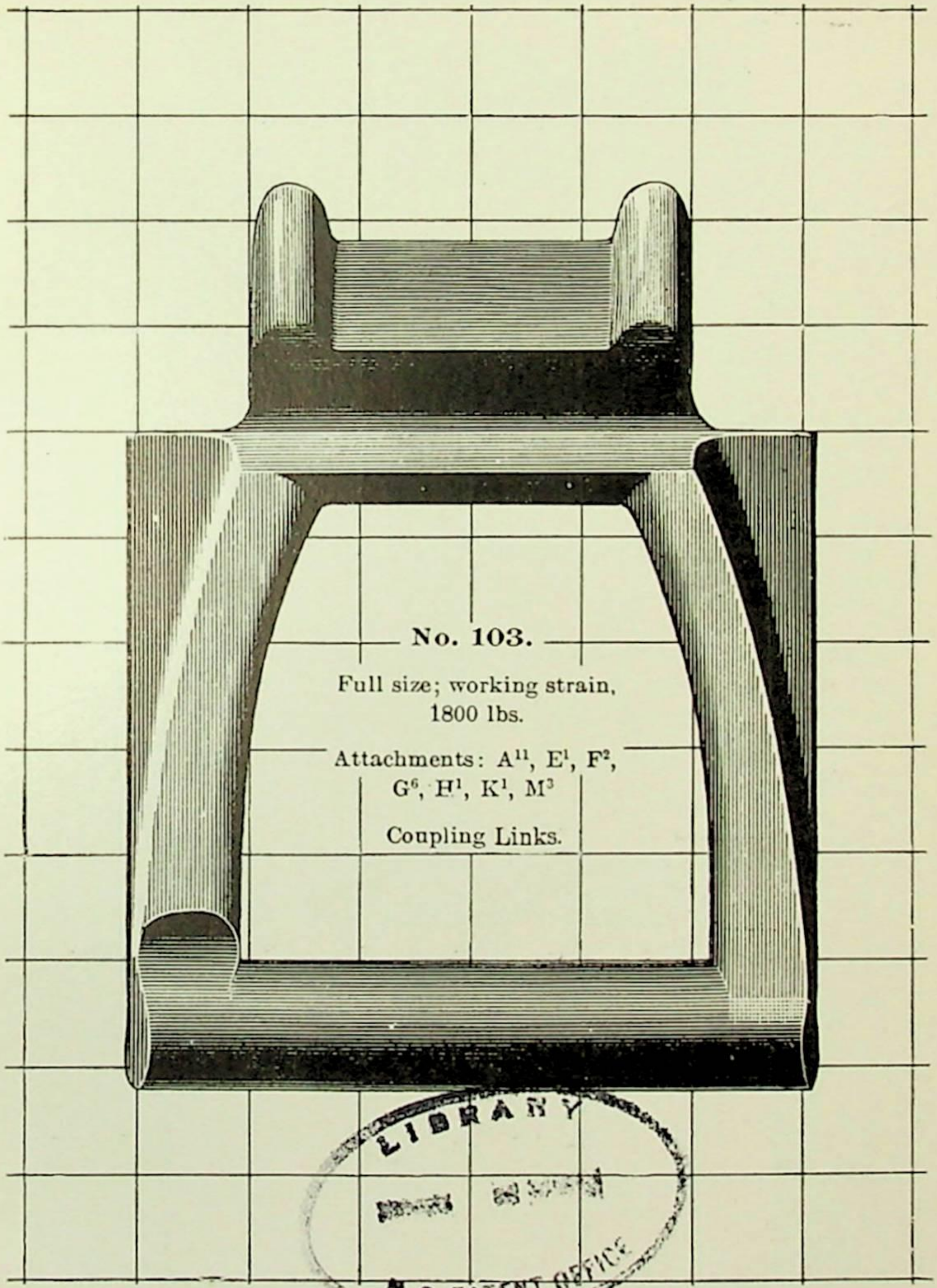
No. 95.

Full size; working strain, 1600 lbs.

Attachments: F^2, H^2, K^2.
Coupling Links.

PATENT APPLIED FOR.

LINES ARE ONE-HALF INCH APART.



No. 103.

Full size; working strain, 1800 lbs.

Attachments: A^{11}, E^{1}, F^{2}, G^{6}, H^{1}, K^{1}, M^{3}

Coupling Links.

PATENT APPLIED FOR.

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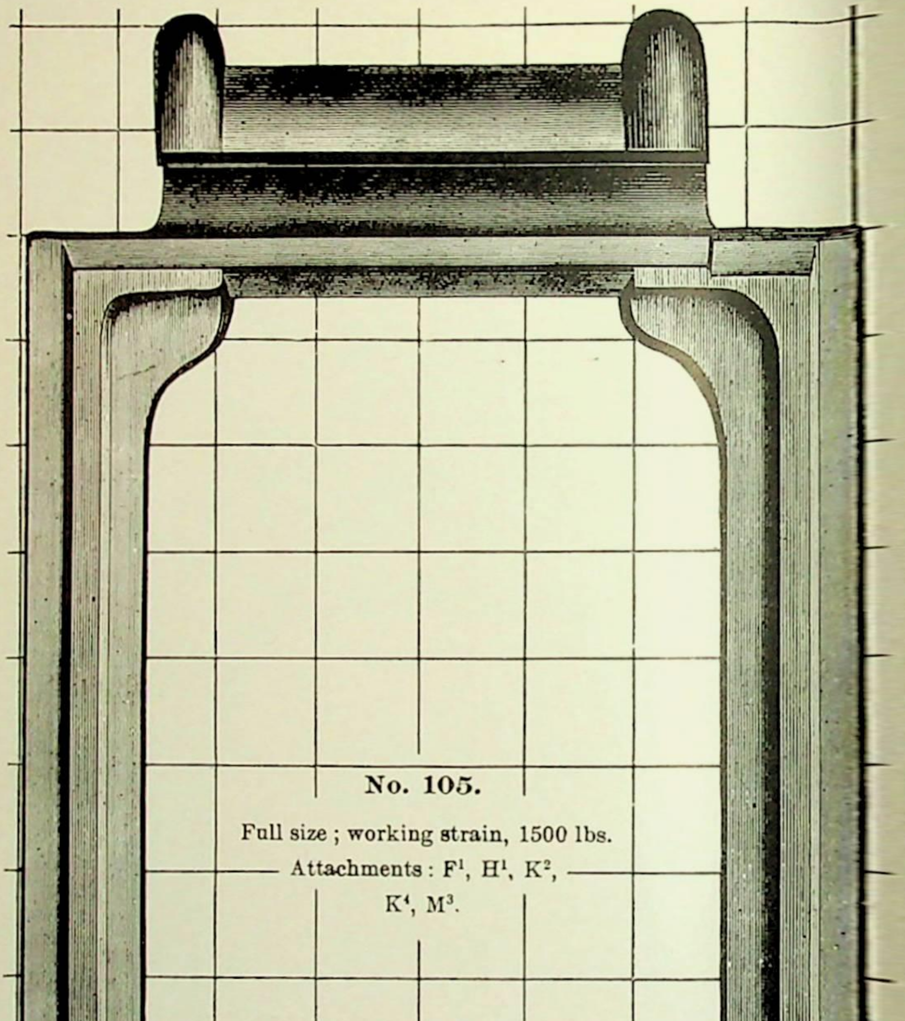

No. 105.

Full size; working strain, 1500 lbs.

Attachments: F^1, H^1, K^2, K^4, M^3.

PATENT APPLIED FOR.

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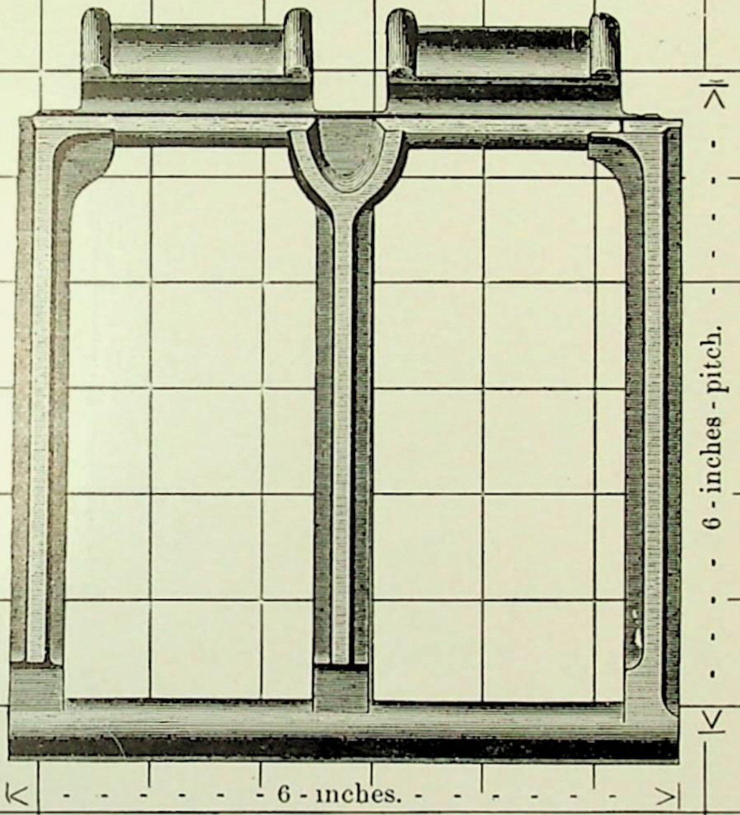
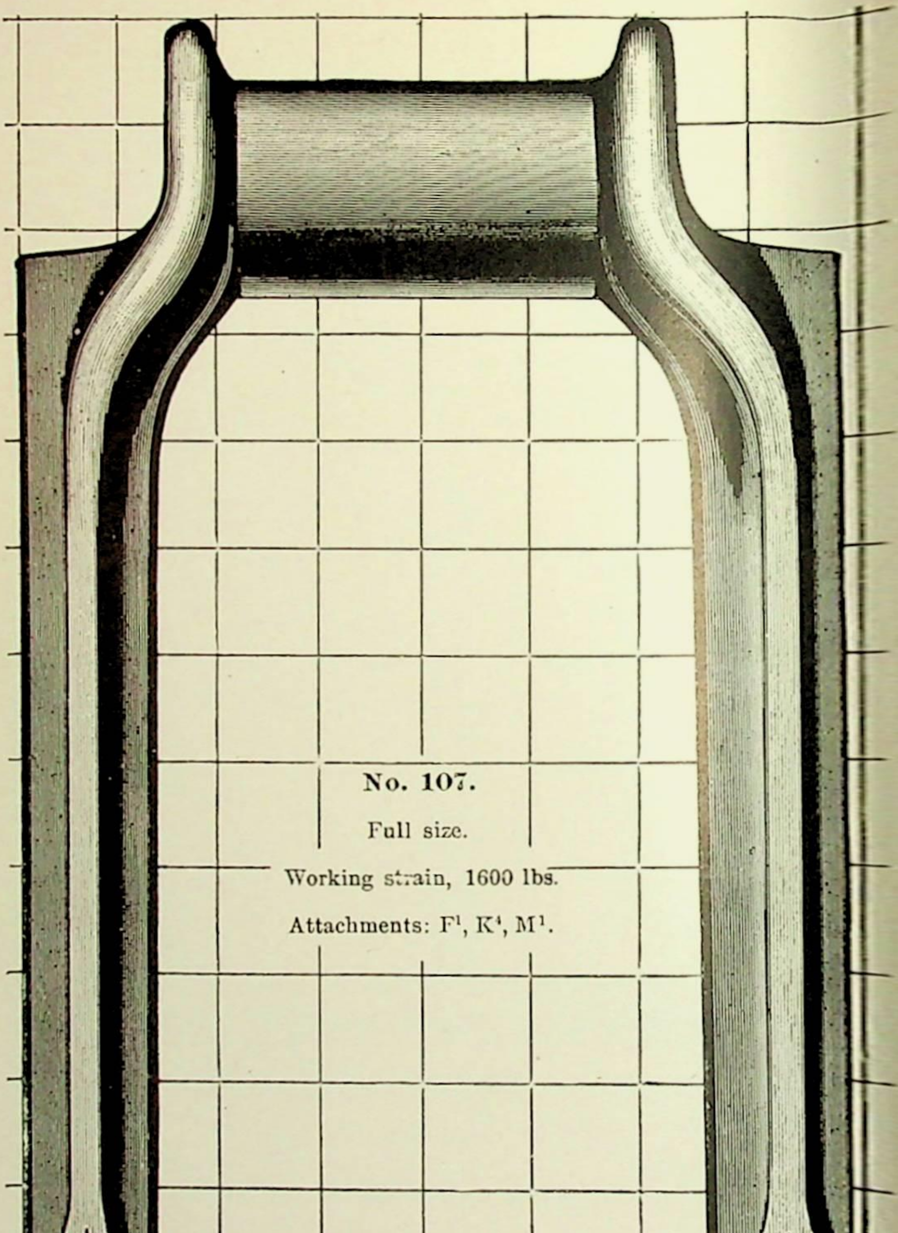


No. 106.

Half size; working strain, 1700 lbs.

Attachments: K², K⁴.

PATENT APPLIED FOR. LINES ARE ONE-HALF INCH APART.



No. 107.

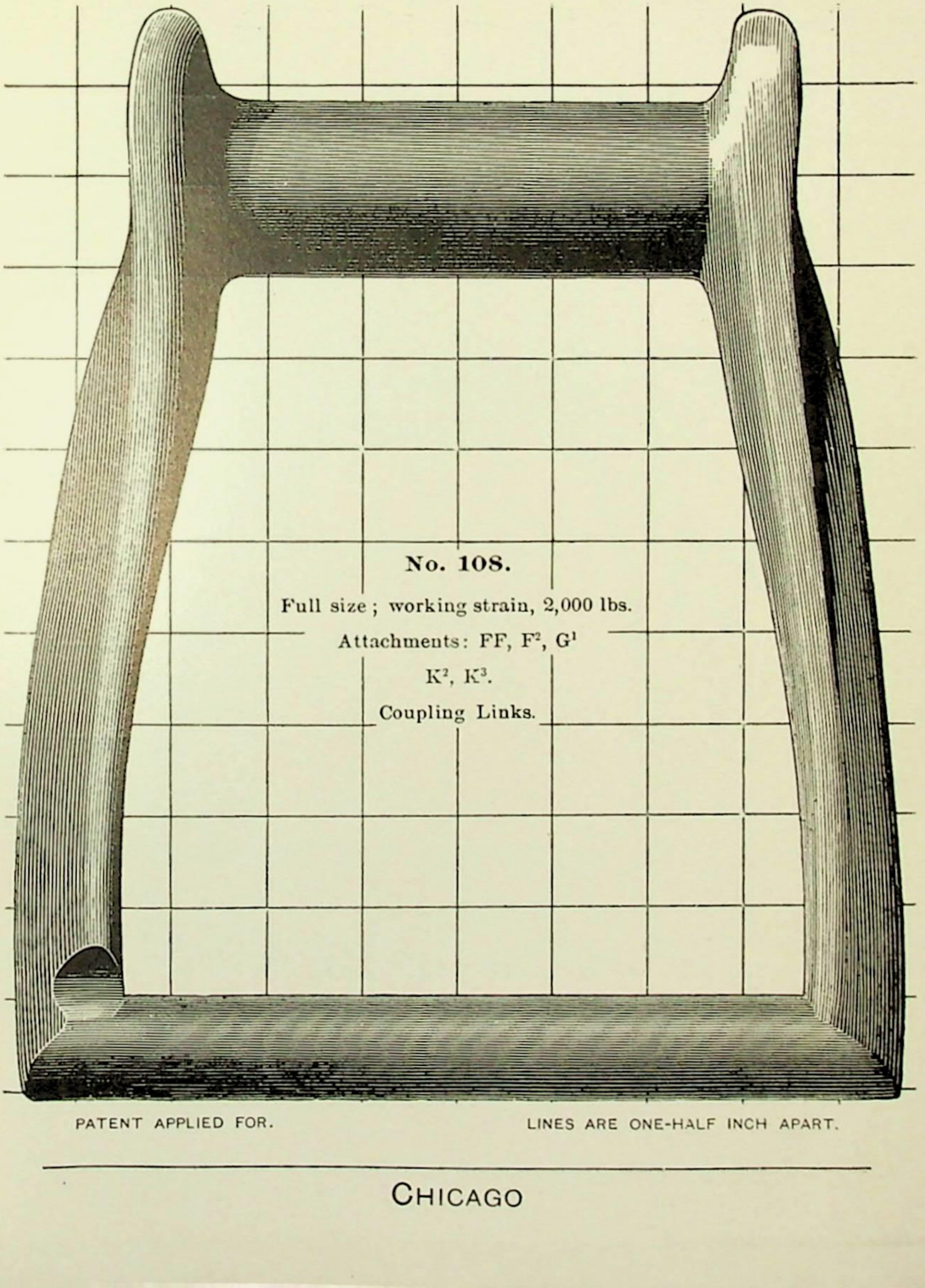
Full size.

Working strain, 1600 lbs.

Attachments: F^1, K^4, M^1.

PATENT APPLIED FOR.

LINES ARE ONE-HALF INCH APART.



No. 108.

Full size; working strain, 2,000 lbs.

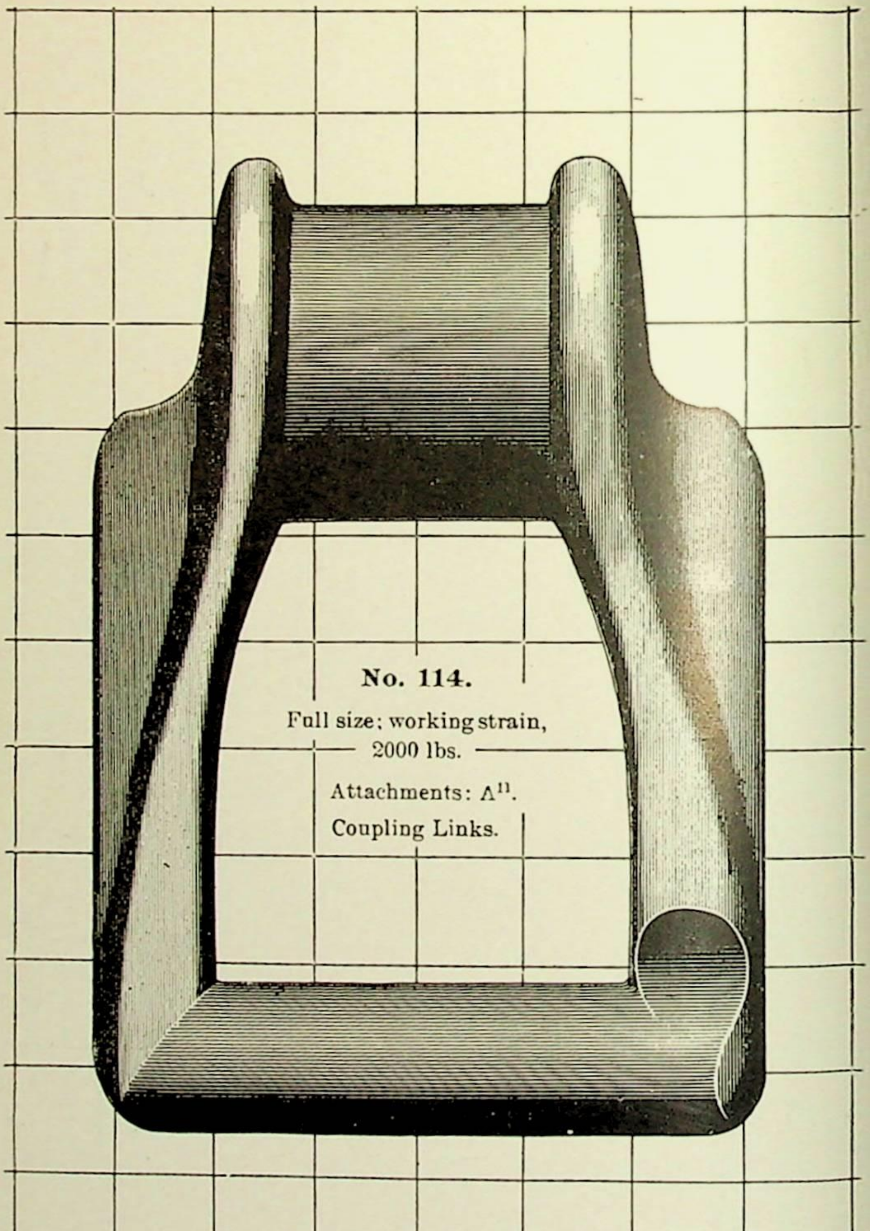
Attachments: FF, F^2, G^1

K^2, K^3.

Coupling Links.

PATENT APPLIED FOR.

LINES ARE ONE-HALF INCH APART.



No. 114.

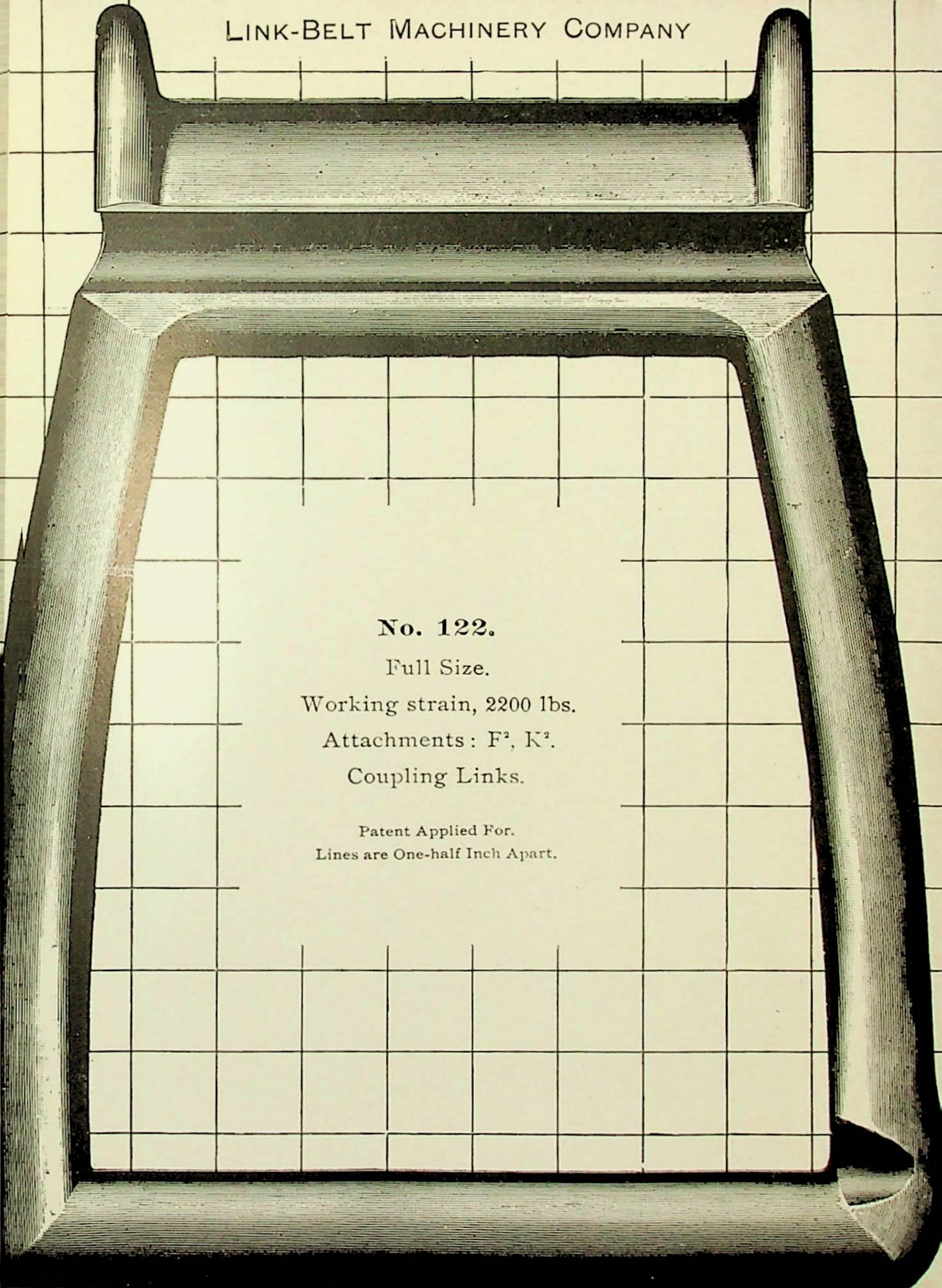
Full size; working strain, 2000 lbs.

Attachments: A^{11}.

Coupling Links.

PATENT APPLIED FOR.

LINES ARE ONE-HALF INCH APART.



No. 122.

Full Size.

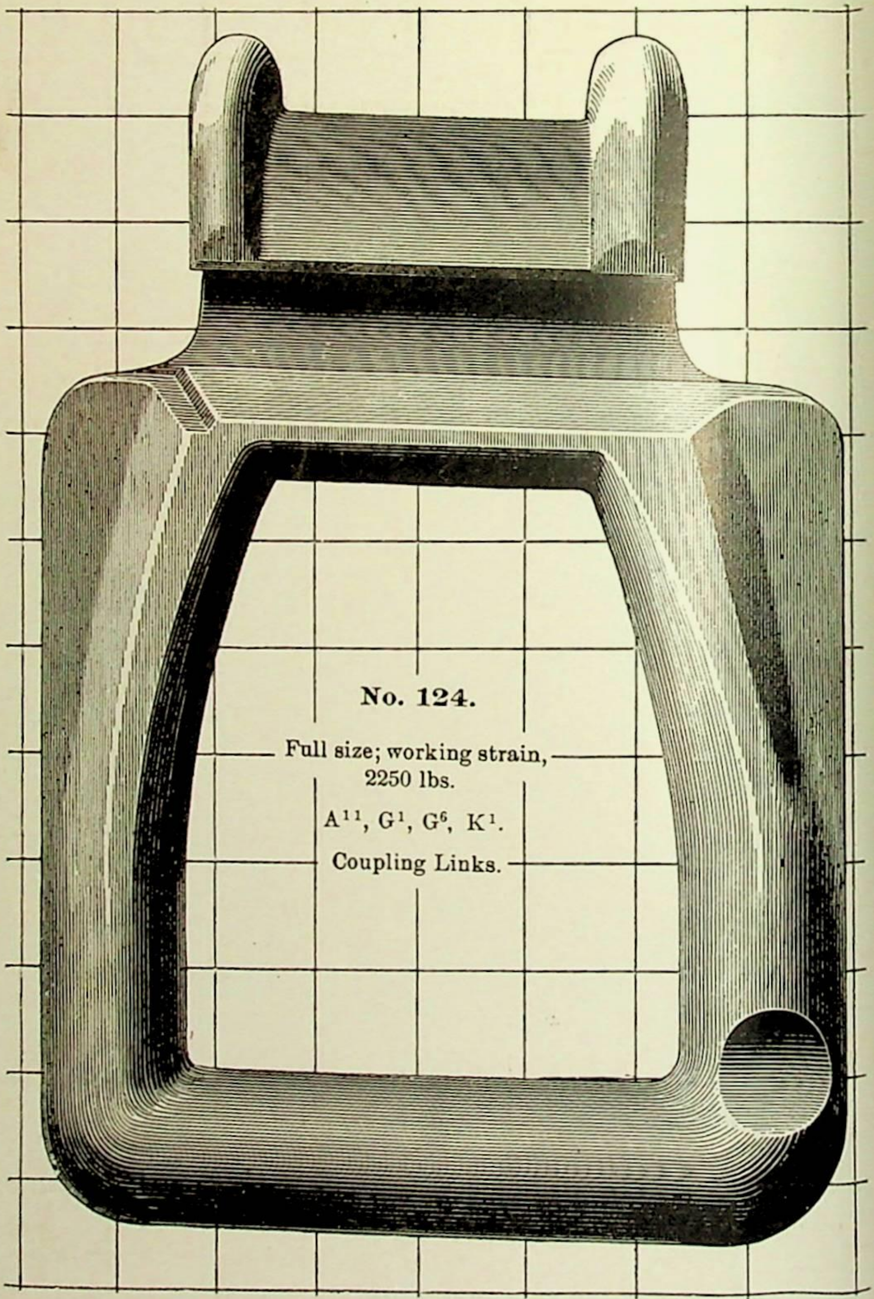
Working strain, 2200 lbs.

Attachments: F^2, K^2.

Coupling Links.

Patent Applied For.

Lines are One-half Inch Apart.



No. 124.

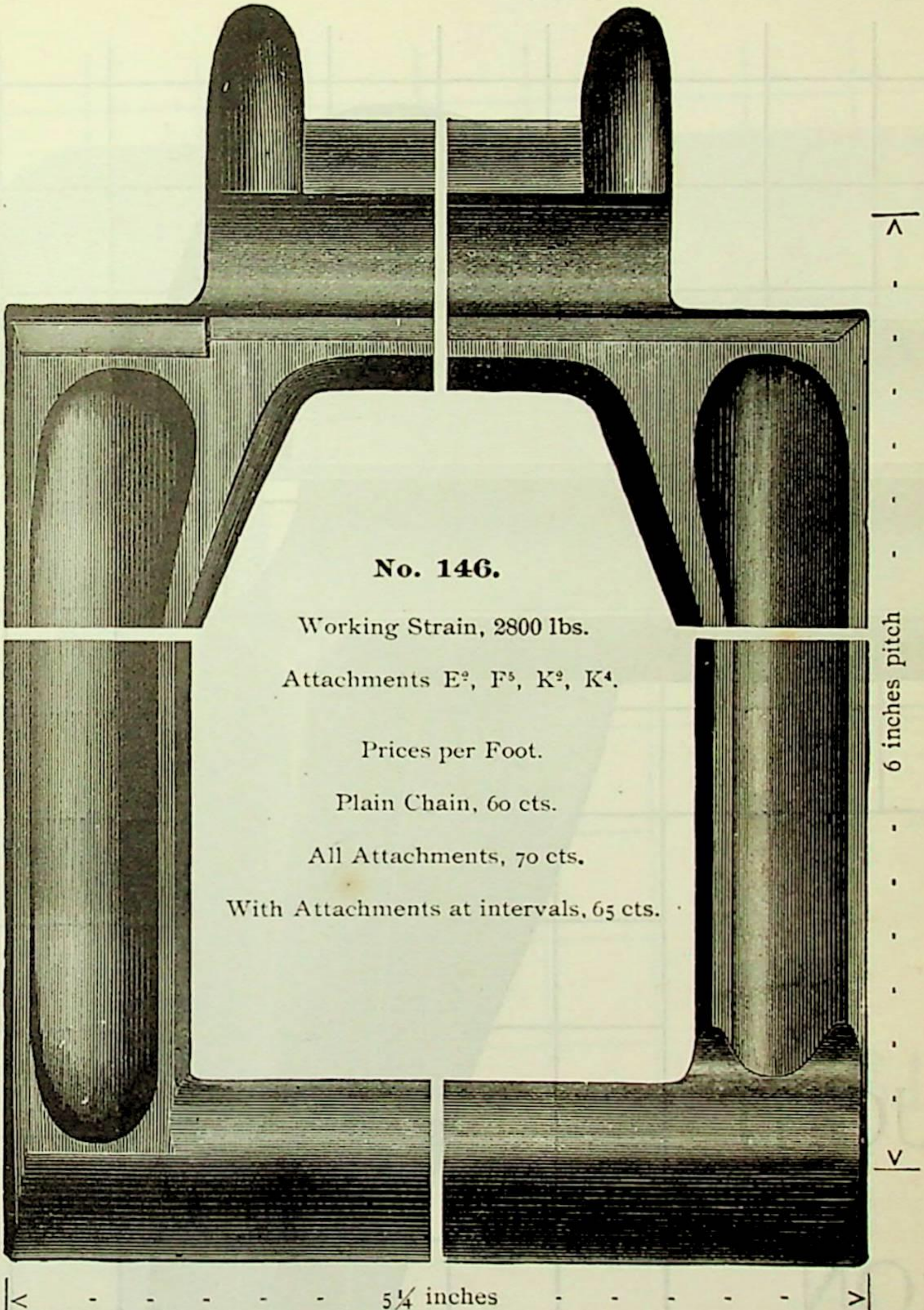
Full size; working strain, 2250 lbs.

A^{11}, G^{1}, G^{6}, K^{1}.

Coupling Links.

PATENT APPLIED FOR.

LINES ARE ONE-HALF INCH APART.



No. 146.

Working Strain, 2800 lbs.

Attachments E^2, F^5, K^2, K^4.

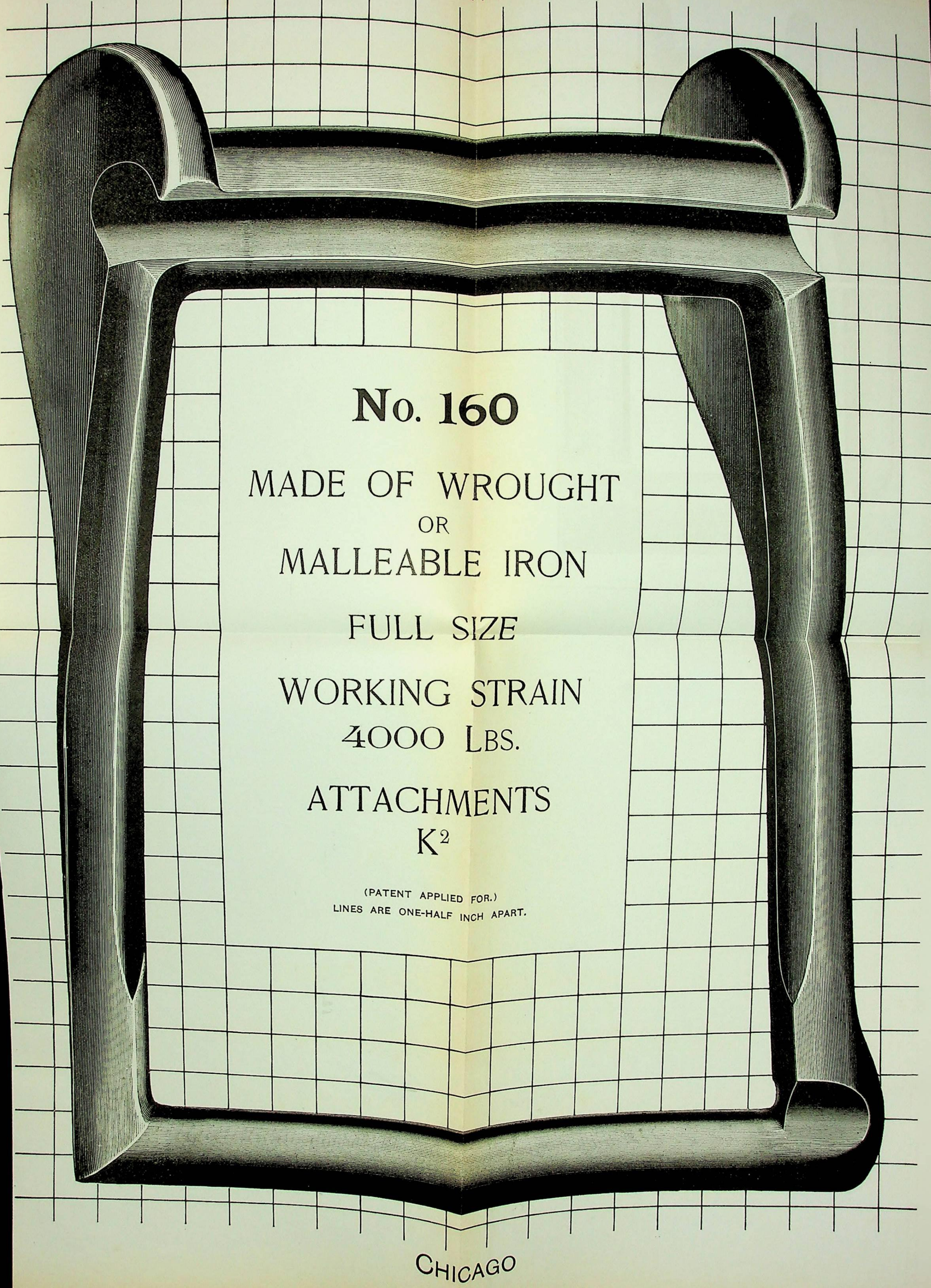
Prices per Foot.

Plain Chain, 60 cts.

All Attachments, 70 cts.

With Attachments at intervals, 65 cts.

LINK-BELT MACHINERY COMPANY



No. 160

MADE OF WROUGHT
OR
MALLEABLE IRON

FULL SIZE

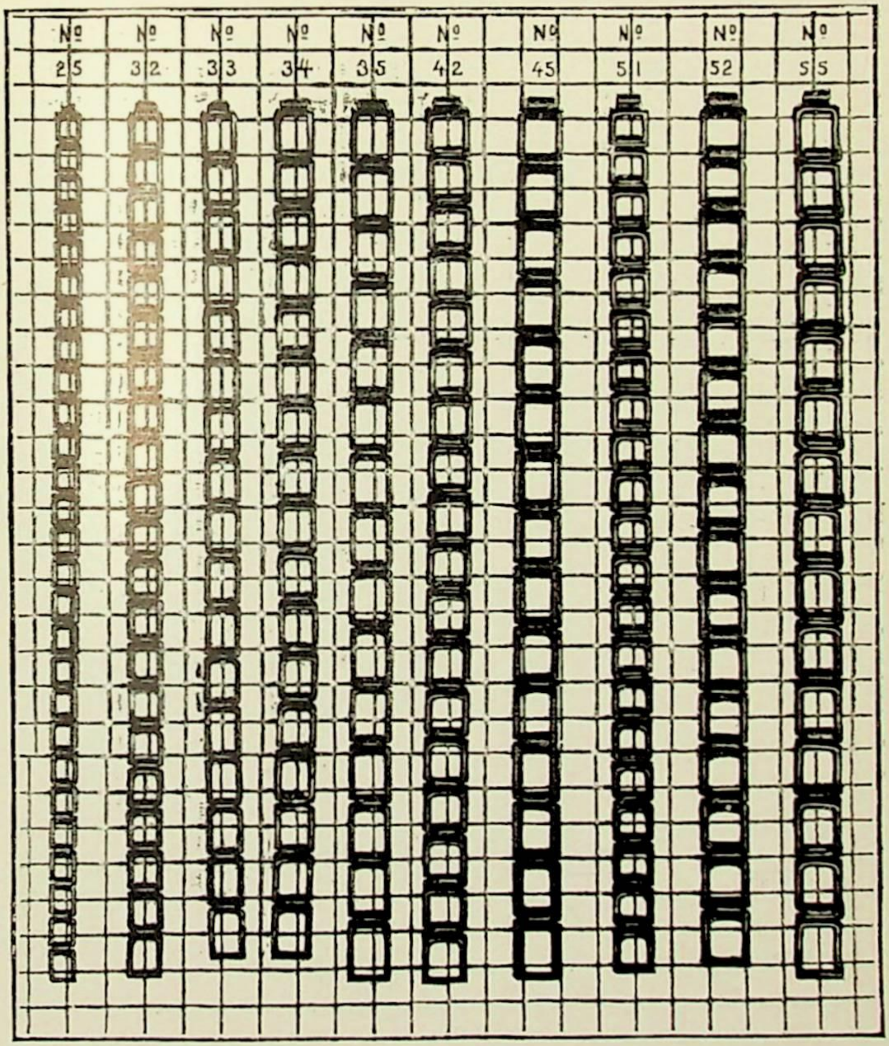
WORKING STRAIN
4000 LBS.

ATTACHMENTS
K^2

(PATENT APPLIED FOR.)
LINES ARE ONE-HALF INCH APART.

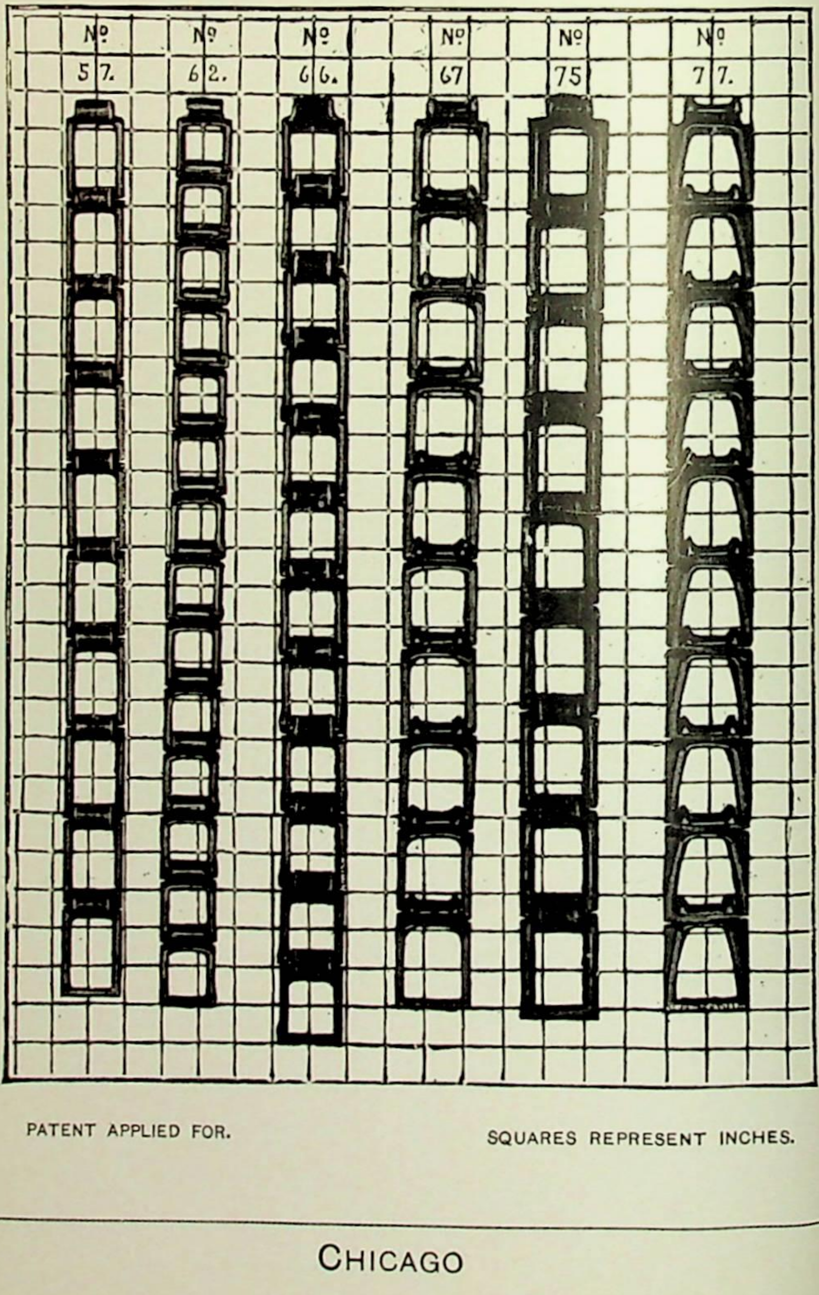
CHICAGO

Photographs Showing Comparative Sizes of Ewart Detachable Link-Belting.



PATENT APPLIED FOR. SQUARES REPRESENT INCHES.

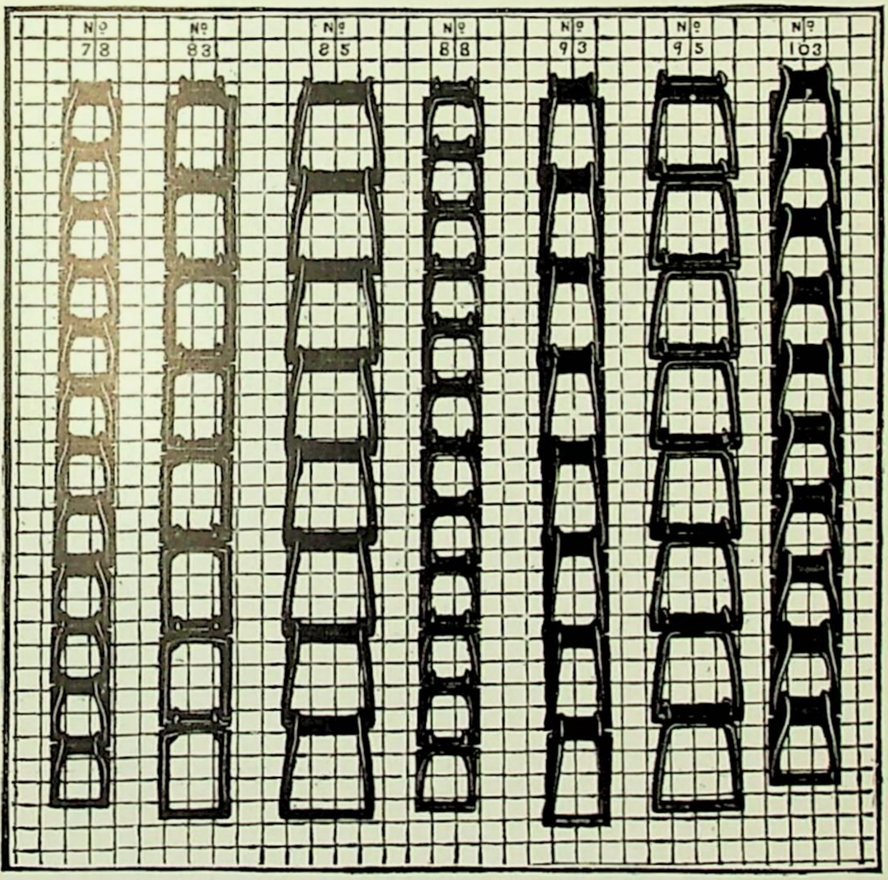
Photographs Showing Comparative Sizes of Ewart Detachable Link-Belting.



PATENT APPLIED FOR.

SQUARES REPRESENT INCHES.

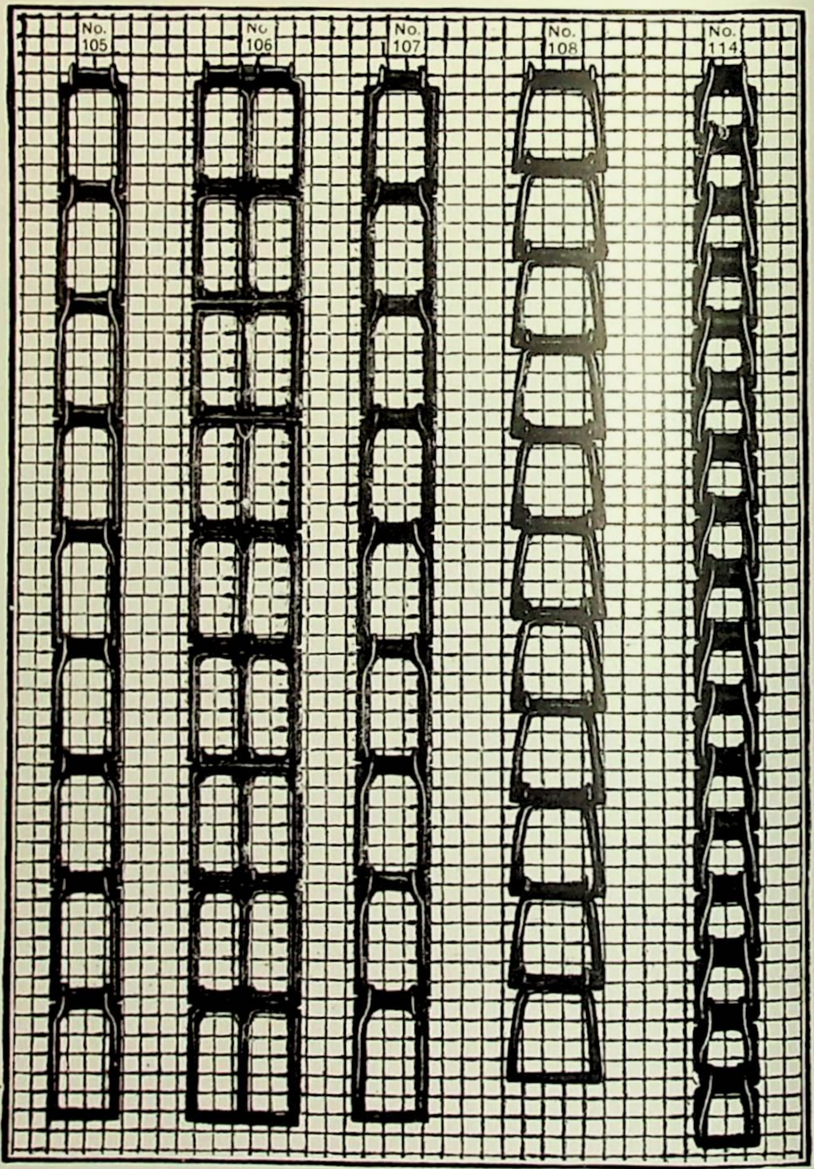
Photographs Showing Comparative Sizes of Ewart Detachable Link-Belting.



PATENT APPLIED FOR.

SQUARES REPRESENT INCHES.

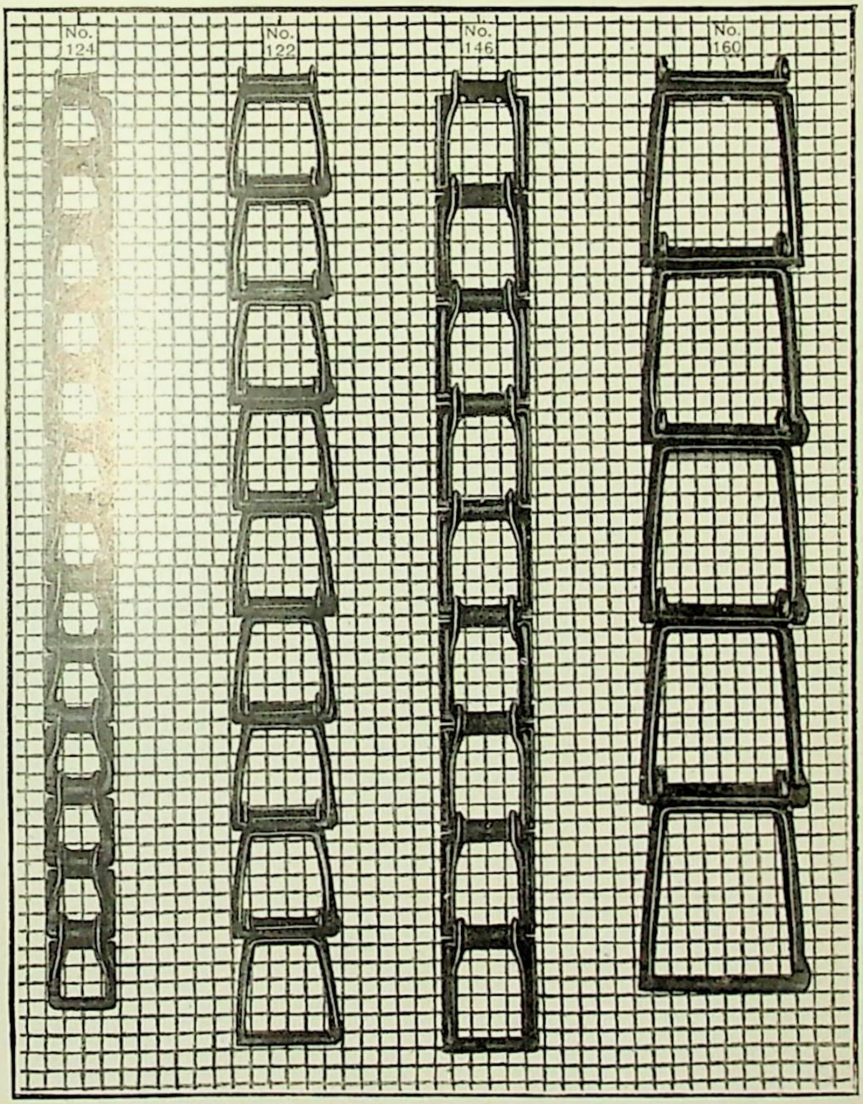
Photographs Showing Comparative Sizes of Ewart Detachable Link-Belting.



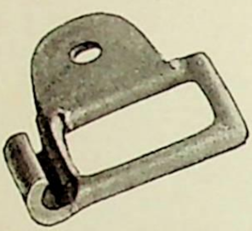
PATENT APPLIED FOR.

SQUARES REPRESENT INCHES.

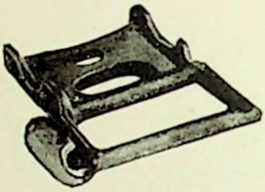
Photographs Showing Comparative Sizes of Ewart Detachable Link-Belting.



PATENT APPLIED FOR. SQUARES REPRESENT INCHES.



A^1



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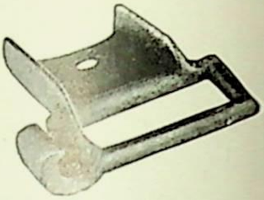

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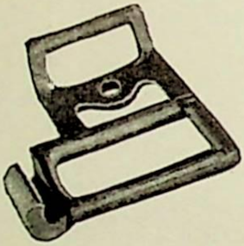

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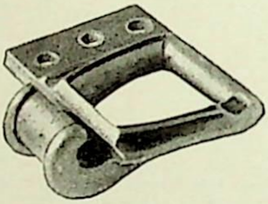

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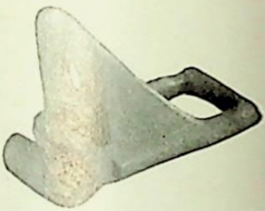

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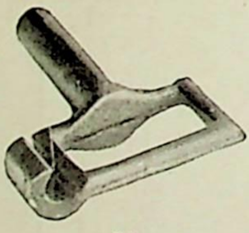

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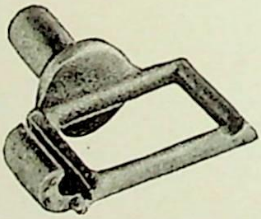

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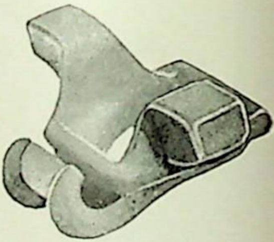

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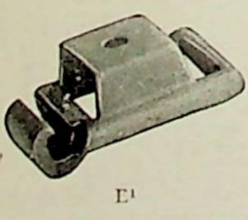
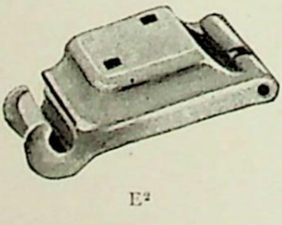
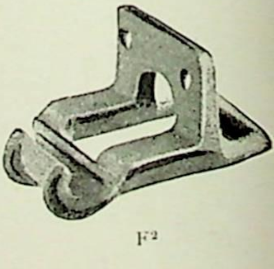


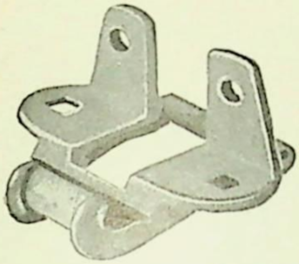
E^1



E^2



F^2



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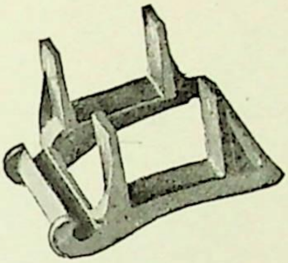

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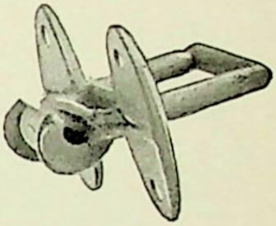

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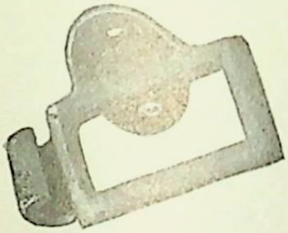
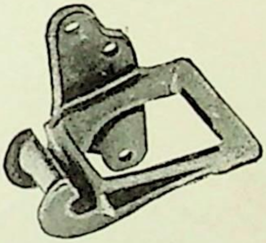
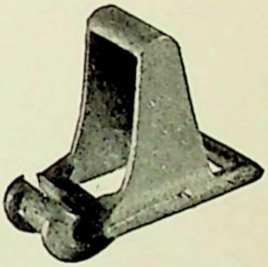


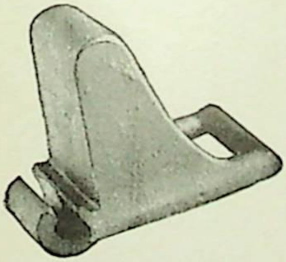
G^1



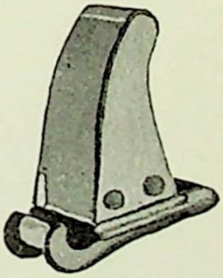
G^6



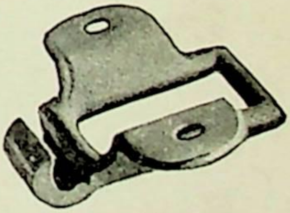
H^1



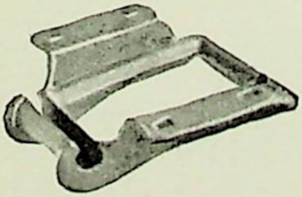
H^2



H^6



K^1



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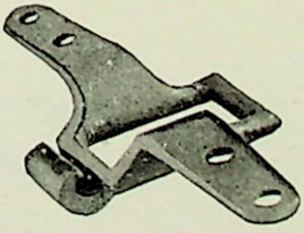

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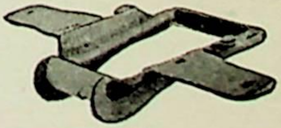

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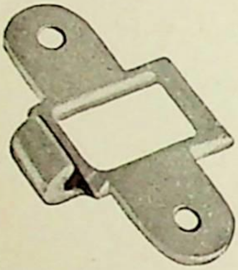
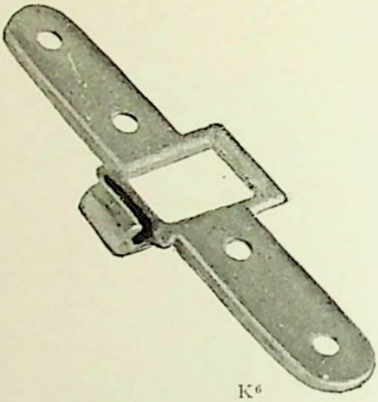
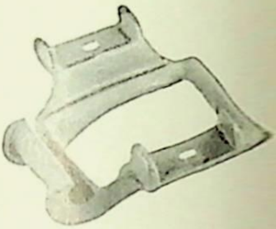


K^5



K^6



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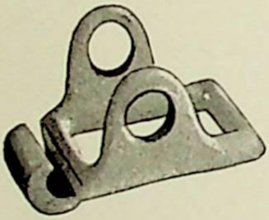
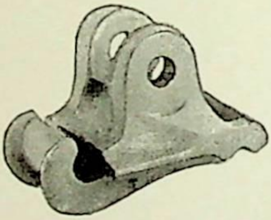
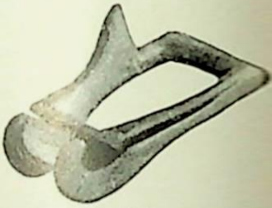


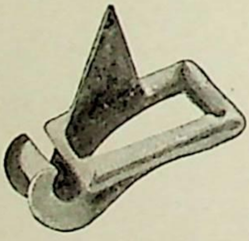
M^1



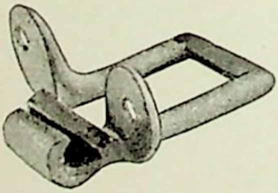
M^3



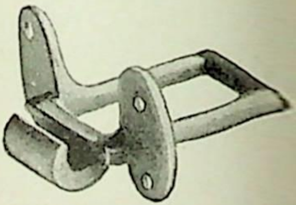
R^1



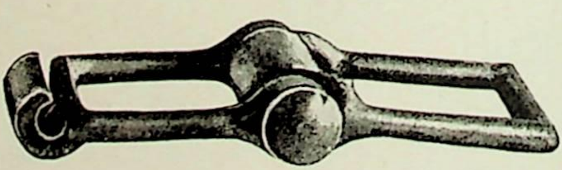
R^3



S^1

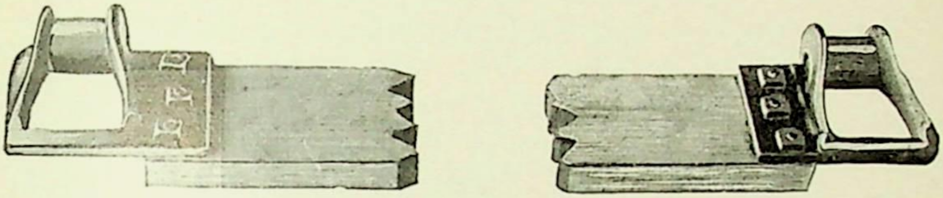


S^2

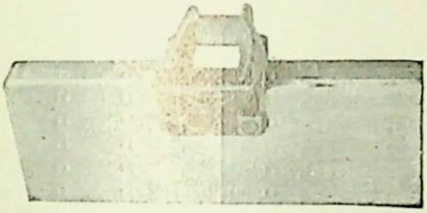


COUPLING LINKS

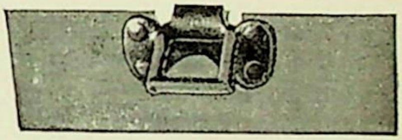
Method of Using Ewart Detachable Link-Belt Attachments



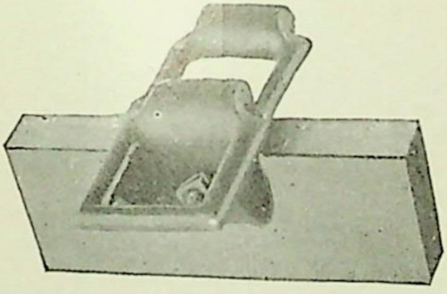
A ATTACHMENTS



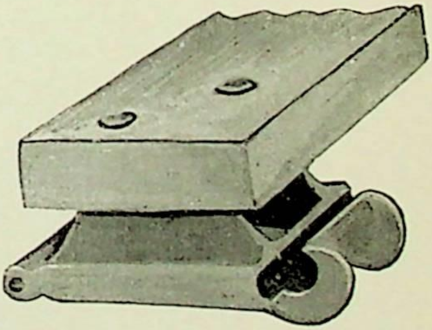
F^1 ATTACHMENT



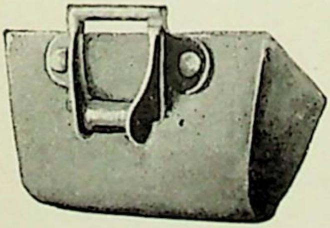
S^2 ATTACHMENT



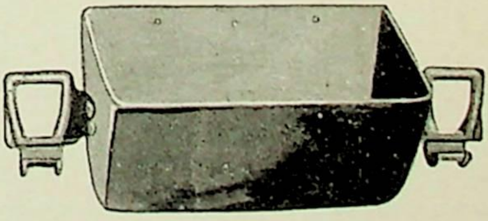
C^1 ATTACHMENT



E ATTACHMENTS



K ATTACHMENTS



G ATTACHMENTS

Price List of the Original Ewart Detachable Link-Belting

No.	Price Per Foot.			Links per Foot.	Working Strain.	Approximate in Leather Belting.		
	All Plain Links.	All Attachment Links.	With Attachments at Intervals.					
25	$0.08	$0.19	$0.11	13.3	75 lbs.	1	in.	Single
32	.08	.17	.11	10.4	150 "	1½	"	"
33	.07	.17	.10	8.6	200 "	2	"	"
34	.08	.17	.11	8.6	225 "	2½	"	"
35	.08	.15	.11	7.4	250 "	2½	"	"
42	.09	.16	.12	8.8	300 "	3	"	"
45	.09	.16	.12	7.4	350 "	3½	"	"
51	.11			10.4	375 "	3½	"	"
52	.12	.17	.13	8.	500 "	4	"	"
55	.12	.17	.13	7.4	450 "	4	"	"
57	.12	.20	.16	5.2	600 "	6	"	"
62	.16	.21	.18	7.3	650 "	6½	"	"
66	.16	.21	.18	6.	700 "	6½	"	"
67	.16	.21	.18	5.2	700 "	7	"	"
75	.18	.22	.19	4.6	750 "	7½	"	"
77	.18	.22	.19	5.2	800 "	8	"	"
78	.21	.28	.23	4.6	1000 "	10	"	"
83	.25	.35	.28	3.	1200 "	12	"	"
85	.27	.35	.30	3.	1300 "	9	"	Double
88	.25	.35	.30	4.6	1200 "	8	"	"
93	.30	.40	.35	3.	1600 "	10	"	"
95	.32	.40	.35	3.	1600 "	10	"	"
103	.40	.42	.41	4.	1800 "	12	"	"
105	.35	.40	.37	2.	1500 "	10	"	"
106	.45	.50	.48	2.	1700 "	11	"	"
107	.40	.42	.41	2.	1600 "	10	"	"
108	.40	.45	.42	2.55	2000 "	13	"	"
114	.50	.60	.55	3.66	2000 "	13	"	"
122	.60	.80	.70	2.	2200 "	15	"	"
124	.60	.80	.70	3.	2250 "	17	"	"
160	.80	1.00	.90	1.2	4000 "			

The above prices of Attachments are for A1, A2, A3, C1, E1, F2, F8, G1, G6, H1, H2, K1, K2, M1, M3, R1, R3, S1, and S2, and as they are now made for the respective chains. Other attachments will be furnished at special prices.

NOTE.—F8 is similar to F2 but heavier, and is intended for use with iron scrapers doing heavy duty.

List of Attachments

As Regularly Made for Original Ewart Link-Belting

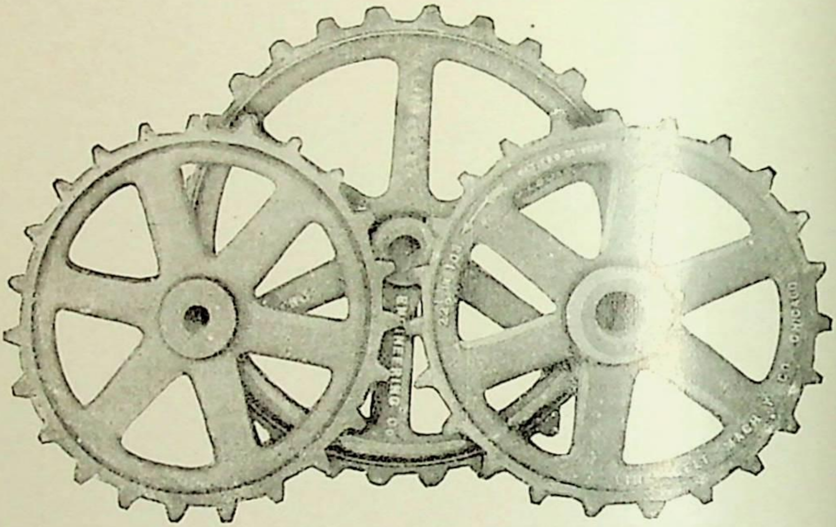
FOR PRICES OF REGULAR ATTACHMENTS, SEE PAGE 40

PRICES OF OTHERS QUOTED UPON APPLICATION

No. of Chain	REGULAR ATTACHMENTS.	
25	A3 C1 D3 E1 G1 H2 K1 K5 K6 M1 S1	Coupler
32	A1 A3 C1 D3 E1 G1 K1 K3 K6	Coupler
33	A1 D3 E1 K1 K3 K5 K6 M1 S1	Coupler
34	A1 E1 K1	Coupler
35	A1 A2 A10 C1 E1 K1 S1	Coupler
42	A1 C1 K3 K5 K6 S1	
45	A1 A3 A10 C1 D3 D5 E1 G1 H1 K1 K3 K5 M1 S1	Coupler
51	A1 K1 K5 S1	
52	A1 A3 D3 E1 G1 K5	
55	A1 A2 C1 E1 F2 K1 M1 S1	Coupler
57	A1 D5 E1 F2 H1 K1 S2	Coupler
62	A1 A3 C1 D5 K1 K5	Coupler
66	C1	Coupler
67	A1 D5 E1 FF F2 H1 K1 S2	Coupler
75	E1 H1 K1 R1	
77	E1 F2 G1 G6 H1 K1 R3 S2	Coupler
78	A3A11 E1 FF F2 F4 G1 G6 H1 H6 K1 M3 R1 S2	Coupler
83	D5 E1 FF G1 M3	
85	E2 FF F2 F5 G6 H2 K2 K4 K7 S2	Coupler
88	A3 FF F2 F8 G6 H1 K1 R1 S2	Coupler
93	G1	
95	F2 H2 K2	Coupler
103	A11 E1 F2 F8 G6 H1 K1 M3	Coupler
105	F1 H1 K2 K4 M3	
106	K2 K4	
107	F1 K4 M1	
108	FF F2 G1 K2 K3	Coupler
114	A11 F8	Coupler
122	F2 K2	Coupler
124	A11 F8 G1 G6 K1 M3	Coupler
160	K2	

In addition to the above we have 500 patterns of Special Attachments.

Sprocket Wheels



All our Sprocket Wheels for Link-Belting are machine-finished to pitch, making smooth and perfect running wheels.

The Differential Pitch Sprocket Wheel (Patented), as shown above, gives a smaller pitch to the driven than to the driving wheel — a very desirable quality for the rapid and smooth running of any chain belting.

If it is desired to run the wheels in both directions, state the fact when ordering, as differential pitch wheels are to be run in one direction only.

Sprocket Wheels will be fitted with friction or jaw clutches when so ordered, and charged for accordingly.

For price of splitting Sprocket Wheels see page 46.

Price List of Ewart Sprocket Wheels

Bored and Key-Seated or Set-Screwed

No. 25.		
Pitch Diam. Ins.	No. of Teeth.	Price.
2	7	$0.80
2½	8	.85
2¾	9	.90
3¼	11	1.00
3½	12	1.05
3¾	13	1.10
4	14	1.10
4¼	15	1.15
4¾	16	1.20
5	17	1.25
6	21	1.45
6¼	22	1.50
7½	26	1.70
8	28	1.80
10	35	2.10
10¼	36	2.15
12	42	2.40
13¾	48	2.70
15	52	2.90
16	56	3.10
17¼	60	3.30
18¼	64	3.50
24	84	5.00

No. 32.		
Pitch Diam. Ins.	No. of Teeth.	Price.
2	5	$0.80
2½	6	.85
2¾	7	.90
3	8	.95
3½	9	1.05
3¾	10	1.10
4¼	11	1.15
4¾	13	1.25
6	16	1.45
8¼	22	1.80
8½	23	1.95
9	24	2.05
12	33	2.60
14	38	2.90
16	44	3.30
16½	45	3.40

Nos. 33 and 34.		
3	7	$0.95
4	9	1.15
4½	10	1.25
5½	12	1.45
6½	15	1.70
7	16	1.80
8½	19	2.00
9¾	22	2.25
12	27	2.60
14¼	32	3.05
15¼	34	3.20
16	36	3.40
18¼	41	3.90
24	54	5.30

Nos. 35, 45, 55.		
Pitch Diam. Ins.	No. of Teeth.	Price.
2½	5	$0.90
3	6	1.00
3¾	7	1.10
4¼	8	1.25
4¾	9	1.35
5¼	10	1.45
5¾	11	1.55
6	12	1.65
7	13	1.75
7¼	14	1.85
8½	16	2.05
8¾	17	2.15
9½	18	2.25
10	19	2.35
10½	20	2.45
11½	22	2.70
12	23	2.80
12½	24	2.90
13	25	3.00
14¼	27	3.30
16	31	3.70
18¼	35	4.20
20¼	39	4.65
21¾	42	5.00
22¾	44	5.25
23½	45	5.40
28	54	7.00
30	58	7.50
36	69	10.50
42	82	14.00

No. 42.		
Pitch Diam. Ins.	No. of Teeth.	Price.
3	7	$1.10
3¾	9	1.20
4¾	11	1.35
5¾	13	1.45
6¼	14	1.60
8	18	1.95
8¼	19	2.00
9½	22	2.25
10½	24	2.40
11¾	27	2.70
14	32	3.20
15½	36	3.50
18	41	4.00
20	46	4.50
24	55	5.75

No. 51.		
1¾	5	$0.90
2½	7	1.00
4	11	1.25
5	14	1.40
6¼	17	1.60
8	22	2.00
10	27	2.35
10¼	29	2.50
12	33	2.75
14	39	3.20
16	45	3.70
18¼	50	4.10

Ewart Sprocket Wheels—Continued

No. 52.

Pitch Diam. Ins.	No. of Teeth.	Price.
3½	7	$1.10
4	8	1.20
4¼	9	1.30
5	10	1.40
5½	12	1.55
6	13	1.65
6½	14	1.75
7	15	1.85
7½	16	1.95
8	17	2.05
9	19	2.30
10	21	2.50
12½	26	3.00
13	27	3.15
14½	30	3.50
16½	34	4.00
18	38	4.50
20	42	5.00
22	46	5.45
23¾	49	5.80
24½	51	6.15
26½	55	7.00
30½	64	8.00

Nos. 57, 67, 77.

Pitch Diam. Ins.	No. of Teeth.	Price.
4½	5	$1.35
4¾	6	1.45
5½	7	1.55
6	8	1.70
6¾	9	1.85
7½	10	2.00
8	11	2.15
8¾	12	2.30
9½	13	2.50
11	15	2.85
12½	17	3.25
14	19	3.65
14¾	20	3.85
15½	21	4.05
16½	22	4.25
17	23	4.50
18¼	25	5.00
19¾	27	5.50
20	28	5.75
22	30	6.25
24¼	33	7.00
26	36	7.75
28	38	8.25
30	41	9.00
32½	44	9.75
36	49	12.00
38½	52	13.50
41½	56	15.50
44½	60	17.00
47½	64	21.00

No. 62.

Pitch Diam. Ins.	No. of Teeth.	Price.
4¼	8	$1.40
5	9	1.50
5¾	11	1.70
7¼	14	2.00
8	15	2.10
8¼	16	2.20
9¼	18	2.45
10½	20	2.75
11½	22	3.05
12	23	3.20
14¾	28	3.95
16	30	4.25
18	34	4.85
20	38	5.45
23	43	6.20
24	45	6.50
26	49	7.50
30½	58	9.00

No. 66.

Pitch Diam. Ins.	No. of Teeth.	Price.
7½	12	$2.00
8½	13	2.25
10¼	16	2.60
12½	19	3.10
16¼	25	4.25

Nos. 75, 78, 88.

Pitch Diam. Ins.	No. of Teeth.	Price.
5	6	$1.65
6	7	1.80
6½	8	2.00
7½	9	2.20
8¼	10	2.40
9	11	2.60
10	12	2.80
10¾	13	3.00
11½	14	3.20
12½	15	3.40
14¼	17	3.90
16	19	4.40
16½	20	4.65
18½	22	5.15
20	24	5.65
21	25	5.90
22½	27	6.40
24	29	6.90
24¾	30	7.15
28½	34	8.55
29½	35	8.90
30½	37	10.00
32½	39	10.90
33½	40	11.40
37	44	12.80
38	46	14.00
42	49	16.50
48	58	22.50
64	77	33.50

No. 83.

All Double Teeth.

Pitch Diam. Ins.	No. of Teeth.	Price.
12	18	$3.50
16	26	4.50
20	32	6.00
24	38	6.50
28½	44	8.50
30	48	10.00
34	54	12.00
41	64	18.00

Ewart Sprocket Wheels—Continued

Nos. 85 and 95.

Pitch Diam. Ins.	No. of Teeth.	Price.
7¾	6	$2.60
10	8	3.25
12½	10	4.00
13½	11	4.30
16	13	5.35
17½	14	5.70
20	16	6.90
22½	18	8.10
24	19	8.70
30	24	11.75
33	26	13.50
34	27	14.50
35½	28	15.50
60	47	36.00

No. 103.

Pitch Diam. Ins.	No. of Teeth.	Price.
7	7	$2.60
7¾	8	2.80
8¾	9	3.00
9¾	10	3.25
11¾	12	3.85
12½	13	4.20
13½	14	4.55
14½	15	4.90
15½	16	5.25
16½	17	5.60
18	19	6.30
19½	20	6.65
21½	22	7.35
22½	23	7.70
23½	24	8.00
25½	26	9.00
30	31	11.50
32	33	12.50
37	38	15.25
41	42	17.50
45	46	21.00
48	49	23.50
68	7 Segm'ts 70	40.00
79	81	70.00
96	7 Segm'ts 98	62.00

Nos. 105 and 107.

Pitch Diam. Ins.	No. of Teeth.	Price.
11¾	6	$4.50
15¾	8	4.90
19½	10	6.25
19¾	Dbl. T'th 20	7.00
23	12	7.75
23½	Dbl. T'th 24	8.75
25¼	13	9.75
27½	14	10.75
31	16	13.00
36¾	19	16.00
48½	25	25.50

No. 108.

Pitch Diam. Ins.	No. of Teeth.	Price.
12	8	$4.50
13½	9	5.00
16½	11	6.00
18	12	6.50
20	14	7.50
24	16	9.00
30	20	12.50
36	24	15.50
48	32	25.00

No. 114.

Pitch Diam. Ins.	No. of Teeth.	Price.
8	8	$3.60
10	10	4.40
13¼	13	5.60
14¼	14	6.00
16½	16	6.80
19½	19	9.00
24	23	11.50
24½	24	12.00
31	30	15.00
33	32	17.00
36	35	20.00
48½	47	30.00

No. 122.

Pitch Diam. Ins.	No. of Teeth.	Price.
17½	9	$9.00
19	10	10.00
23	12	12.50
29½	15	17.00
42½	22	25.00

No. 124.

Pitch Diam. Ins.	No. of Teeth.	Price.
11½	9	$4.75
12½	10	5.10
14½	11	5.60
15¼	12	6.25
16½	13	7.00
18¾	15	9.00
21½	17	11.00
24	19	13.00
26	20	14.00
31	24	16.50
36	28	20.00
44	34	26.00
48	38	35.00
62	48	50.00
72	56	65.00

No. 160.

Pitch Diam. Ins.	No. of Teeth.	Price.
30	9	35.00
40	12	45.00
48	15	55.00

Additional Price to be added to the List Price for Split Sprocket Wheels

Diameter.	No. of Link-Belt.	Price.	Diameter.	No. of Link-Belt.	Price.
6 to 12	25 to 52	$1.70	24¼ to 36	32 to 52	$2.90
	57 to 77	1.85		57 to 77	3.20
	78 to 95	2.00		78 to 95	3.60
	103 to 160	2.20		103 to 160	4.00
12¼ to 24	25 to 52	$2.35	36¼ to 60	57 to 77	$4.60
	57 to 77	2.50		78 to 95	6.00
	78 to 95	2.65		103 to 160	7.80
	103 to 160	2.80	Above 60	78 to 160	$12.00

Special Ewart Wheels

Idlers

Chain Number.	Diameter.	No. of Teeth.	Price.	Chain Number	Diameter.	No. of Teeth.	Price.
33	6¾ in.	15	$1.70	85, 95	10 in.	8	$3.25
35, 45, 55	4 "	7	1.25	85, 95	12½ "	10	4.00
35, 45, 55	4¼ "	8	1.30	85, 95	13½ "	11	4.30
42	3¾ "	9	1.20	103	7¾ "	7	2.60
52	8¼ "	17	2.05	103	9¼ "	9	3.00
57, 67, 77	8¼ "	11	2.15	103	10¼ "	10	3.25
57, 67, 77	10 "	13	2.50	103	13 "	13	4.20
75, 78, 88	6½ "	8	2.00	103	15½ "	16	5.25
75, 78, 88	8¾ "	10	2.40	108	12 "	8	4.50
75, 78, 88	10 "	12	2.80				

Face Wheels

Chain Number.	Diameter.	No. of Teeth.	Price.	Chain Number	Diameter.	No. of Teeth.	Price.
35, 45, 55	3½ in.	6	$1.10	57, 67, 77	9¾ in.	13	$2.60
35, 45, 55	6½ "	12	1.75	57, 67, 77	12½ "	17	3.35
35, 45, 55	8½ "	16	2.15	57, 67, 77	14¼ "	19	3.75
35, 45, 55	10¼ "	19	2.45	57, 67, 77	15¾ "	21	4.20
35, 45, 55	12¼ "	23	2.90	57, 67, 77	19 "	25	5.25
35, 45, 55	14¼ "	27	3.40	57, 67, 77	24½ "	33	7.25
35, 45, 55	16¼ "	31	3.80	57, 67, 77	36 "	49	12.50
42	6 "	13	1.55	62	4¾ "	8	1.50
42	9½ "	22	2.35	62	5¾ "	11	1.80
42	18 "	41	4.10	62	8½ "	16	2.30
52	5 "	10	1.50	62	10 "	18	2.55
52	6¼ "	13	1.75	62	12½ "	23	3.30
52	8¼ "	17	2.15	75, 78, 88	8½ "	10	2.50
52	10 "	21	2.60	75, 78, 88	10¼ "	12	2.90
52	13 "	27	3.25	75, 78, 88	10¾ "	13	3.10
52	14¾ "	30	3.60	75, 78, 88	11¾ "	14	3.30
52	16½ "	34	4.10	75, 78, 88	14¼ "	17	4.00
52	18 "	38	4.60	75, 78, 88	17 "	20	4.80
52	24 "	49	5.90	75, 78, 88	21 "	25	6.10
57, 67, 77	5½ "	7	1.55	75, 78, 88	37 "	44	13.00
57, 67, 77	6¾ "	9	1.95	103	13½ "	14	4.65
57, 67, 77	7½ "	10	2.10	103	37 "	38	15.50
57, 67, 77	8¼ "	11	2.25				

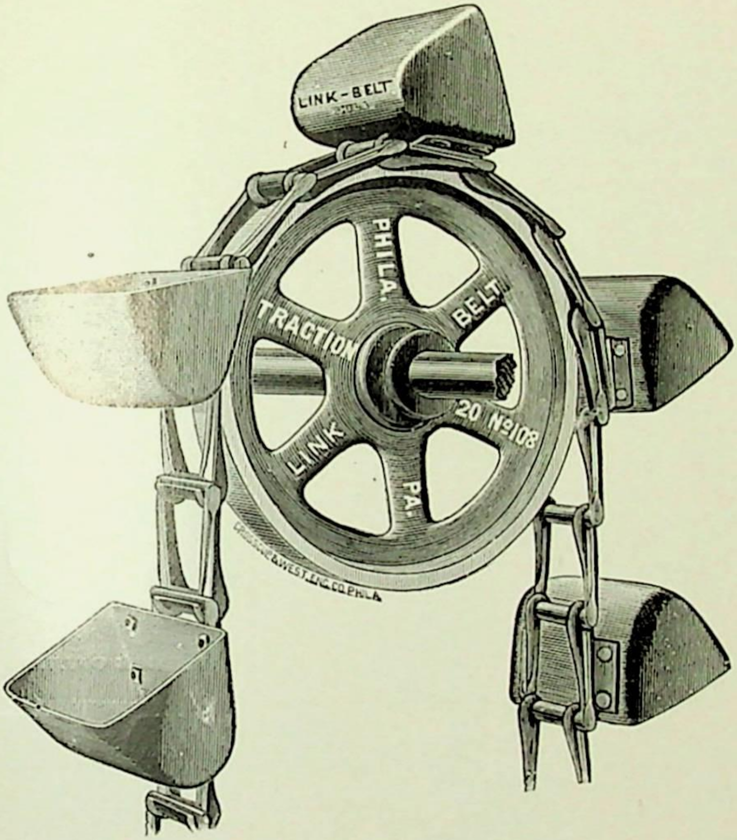
Live Roll Wheels

57, 67, 77	6 in.	8	$2.10
57, 67, 77	6¾ "	9	2.15
57, 67, 77	7½ "	10	2.30
57, 67, 77	8 "	11	2.40
75 77, 88	7½ "	9	2.45

Gap Wheels

		No. of Gaps	
33	16 in.	6	$3.60
35, 45, 55	8½ "	4	2.20
42	8 "	3	2.10
57, 67, 77	14¾ "	4	4.00
57, 67, 77	21 "	4	6.00
75, 77, 88	16½ "	4	4.90
75, 77, 88	20 "	4	5.70
85, 95	20 "	4	7.10
108	22¾ "	3	8.75

Ewart Traction Wheels



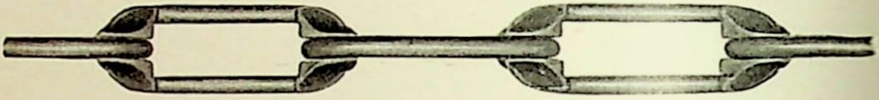
Traction Wheels have turned rims and are very satisfactory for use in elevators, handling heavy or gritty material, the grip being ample to do all the work that the Link-Belting and Buckets should be called upon to do ; and at the same time, in the event of a serious obstruction, the chain may slip. Elevators provided with these wheels will run smoother and last longer in gritty material than they would if sprocket wheels were used,

Price List

Pitch Diam..	12	16	18	20	22	24	25	28	30	36	40	42
Chain No. 85	$4.60	6.00	7.50	9.00			11.75	14.50	15.85	19.00		
" 108		7.25	8.00	9.85	10.90	11.60			16.50	22.75		
" 122	7.00	7.50	9.75	10.00	11.00	12.75			16.85	22.00		25.00
" 160									25.00		40.00	

Dodge Chain

(PATENTED)

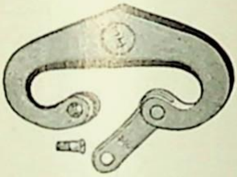


Dodge Chain is an accurately pitched cable chain, in which DETACHABLE BEARING BLOCKS are inserted between the links, presenting large bearing surfaces, and materially increasing the strength and preserving the pitch of the chain; for this reason it is the only satisfactory cable chain to run on toothed wheels, and is the strongest and cheapest for use in long and heavily worked conveyors and elevators.

The construction of the chain allows it to turn any number of angles, in any direction, in the same installation.

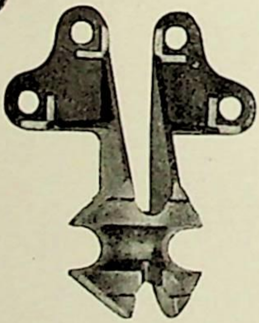
For this chain we have F attachments for flights; K^2 attachments for buckets, etc., and coupling links.

SPLIT COUPLER

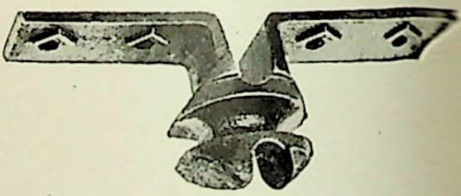


MALLEABLE COUPLER

PLAIN BEARING BLOCK



F^4 ATTACHMENT FOR FLIGHTS

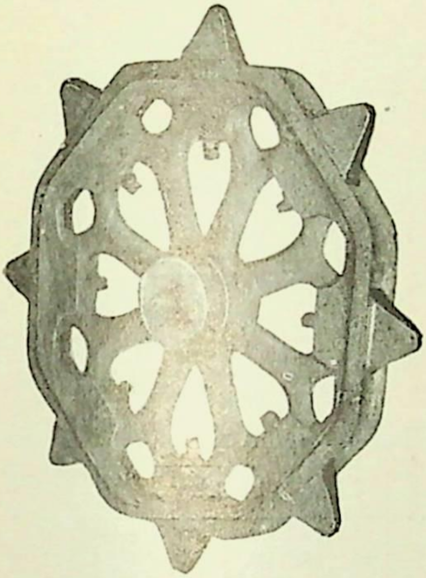


K^2 ATTACHMENT FOR BUCKETS

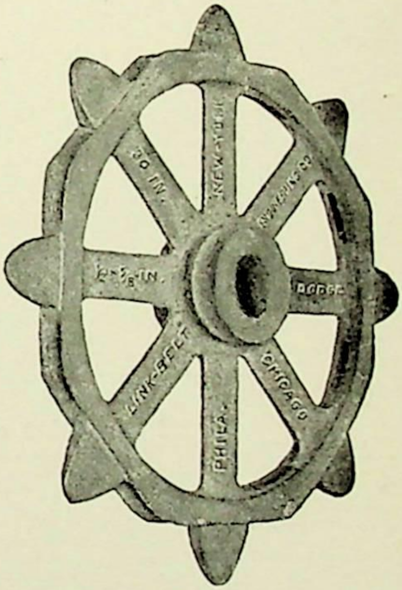
Price List

Size.	Pitch.	Working Strain.	Price, Per Foot.	Bearing Blocks.	Attachments.		Connect Links.
					Flight.	Bucket.	
½ in.	6 in.	10,000	$0.80	$0.30	$0.45	$0.45	$0.65
⅝ "	6 "	12,000	1.00	.35	.50	.50	.75
¾ "	8 "	20,000	1.50	.60	.80	.85	1.00
⅞ "	12 "	25,000	1.75	.80		1.00	

Dodge Chain Wheels



REMOVABLE TOOTH SPROCKET WHEEL



PLAIN WHEEL

The introduction of the **Dodge Chain** in 1882 has made it possible to construct conveyors 800 feet long with deflections in any direction. Considering the duty concentrated on the driving wheels, the importance of making them of the best quality will be appreciated.

Dodge wheels are of four varieties:

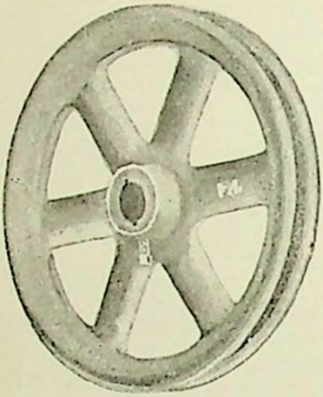
Removable Tooth Sprocket Wheels are made of a superior quality of *Charcoal Iron*, the rims being *chilled*, and gray iron teeth are inserted. Wheels of this class which have been in service ten years are still in good condition.

When the gray iron teeth are finally worn out they are replaced quickly and cheaply.

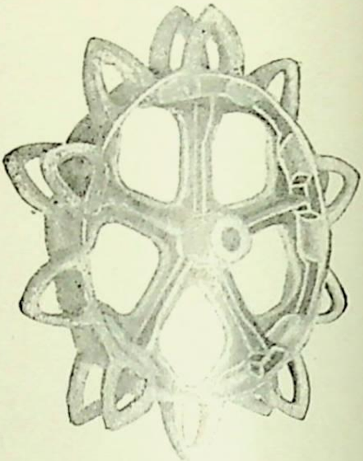
Plain Sprocket Wheels are not chilled, and the teeth are not removable.

Traction Wheels have grooved rims fitting the chain. These wheels can be run horizontally or vertically.

Sprocket Idlers, for supporting and guiding the return chain of conveyors.



TRACTION WHEEL



SPROCKET IDLER

Price List of Sprocket Wheels

Size Chain.	Diameter.	No. of Teeth.	Plain Wheel.	Removable Tooth Wheel.
½ and ⅝ in.	24 in.	6	$15.00	$25.00
"	30 "	8	25.00	45.00
"	38 "	10	30.00	
"	40 "	11		55.00
"	46 "	12		60.00
"	95 "	18	145.00	Special Wheel
¾ in.	30 "	6		50.00
"	37 "	7		57.00
"	41 "	8		65.00
"	50 "	10		90.00
"	66 "	13	Special Wheel	80.00
⅞ in.	46½ in.	6		100.00

Price List of Traction Wheels

Diameter............	24 in.	30 in.	37 in.	40 in.	42 in.	49 in.
Chain, ½ and ⅝ in...	$10.00	$20.00			$26.00	
" ¾ in..........		25.00	$30.00	$35.00		
" ⅞ in..........						$40.00

Price List of Sprocket Idlers

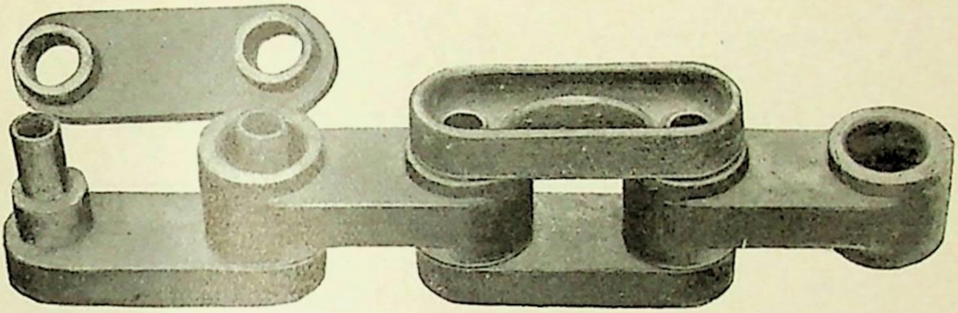
Chain, ½ and ⅝ inch ; diameter, 20 inches ....price, $5.75
" ¾ inch ; diameter, 24 inches .... " 11.00

Extra Teeth, with Bolts

½ inch, 65c. ⅝ inch, 65c. ¾ inch, $1.10

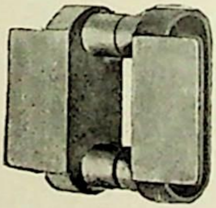
Tubular Chain

(PATENTED)

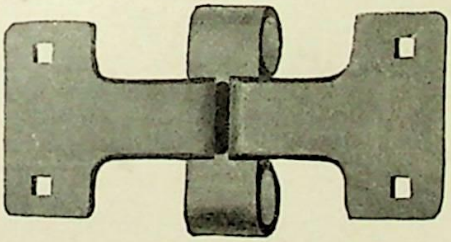


The Tubular Chain is non-detachable, has large wearing surfaces, no rivets, and is especially adapted for use in elevators and conveyors doing heavy work.

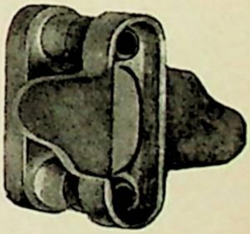
The entire chain is made of the best refined malleable iron, and has the attachments shown below.



K^2



K^3



G^6

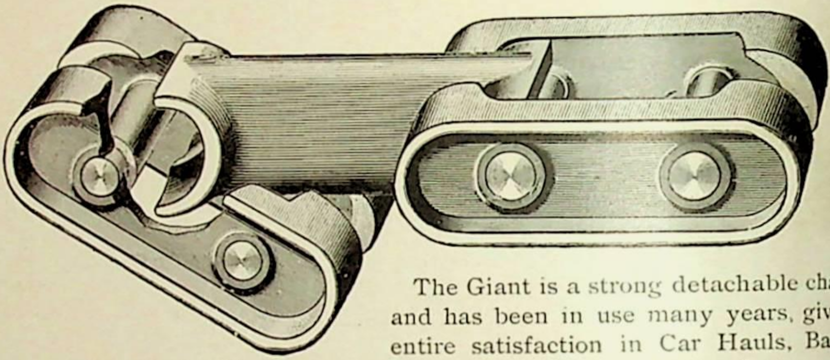
It is made in three sizes.

No. 625. . .	6 inches	pitch,	7,000 lbs.	working	strain.
No. 1225. . . .	12 "	"	8,000 "	"	"
No. 1250. . .	12 "	"	12,000 "	"	"

Prices will be quoted upon application.

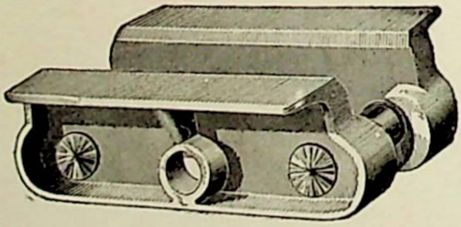
Giant Chain

(PATENTED)

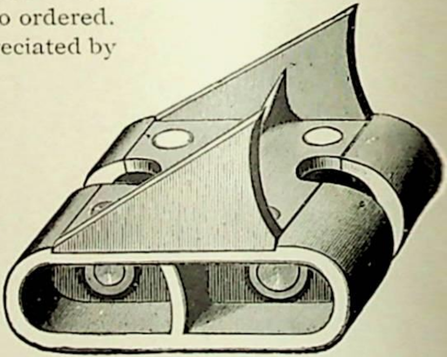


The Giant is a strong detachable chain, and has been in use many years, giving entire satisfaction in Car Hauls, Barrel Elevators, Log Hauls, Heavy Apron Conveyors, and other severe duties. We make Giant Chain so that rollers may be placed between the double links for use in very heavy and long slat conveyors, if so ordered.

As a Log Haul Chain it has been well appreciated by both lumber and pulp manufacturers.



K² ATTACHMENT.



LOG TOOTH.

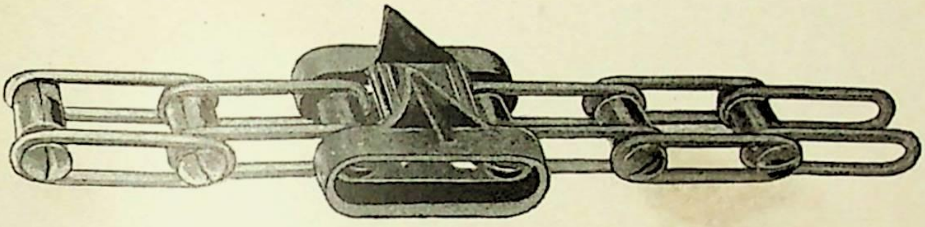
Price List

Size.	Pitch, Coupler and Double Link.	Price Per Foot.	Double Links. Price Each.	Coupler.	K² or Slat Links.	K⁵	All K Attachments.	Log Tooth.
600	6 in.	$1.00	$0.30	$0.20	.80	$0.40	$1.20	$0.70
1200	12 "	.90	.60	.30		.80	1.10	
1050	10 "	1.30	.75	.35		1.05	1.68	1.40
1075	10 "	1.40	.80	.40				1.50

For List of Sprocket Wheels see opposite page.

Howe Bull Chain

(PATENTED)



The Howe Bull Chain is composed of accurately pitched wrought iron cable links held in place by malleable iron separable pins, all links being detachable.

The log teeth, which are inserted 5 feet apart, are made in one solid piece without screws or rivets to work loose, and cause trouble.

The Howe Bull Chain is the simplest and most durable that has ever been produced ; this statement is borne out by the increasing demand and popular favor which it has met, since it was first put in service in 1884.

Working strain, 26,000 lbs. Price with log-tooth every 5 feet, $1.25 per foot.

Wheels for Howe Chain

No. 1 or No. 2,	24 ins. Diameter,	12 Teeth	. . . .	$16.00
" 4 Idler,	24 " "	12 "	. . . .	10.00

Diagram on page 83 shows the positions of these wheels in log-hauls.

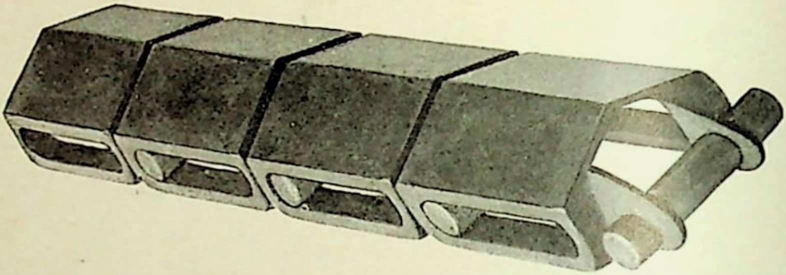
NOTE.—We make an IRON FRAME LOG JACK for driving haul-ups, for an account of which refer to page 83.

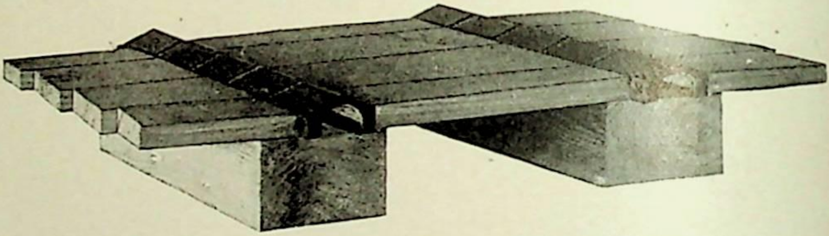
Giant Chain Sprocket Wheels

No. 600.			Nos. 1050 and 1075.			No. 1200.			No. 1200 with No. 600 Coupler.		
Pitch. Diam.	No. of Teeth	Price.	Pitch. Diam.	No. of Teeth	Price.	Pitch. Diam.	No. of Teeth	Price.	Pitch. Diam.	No. of Teeth	Price.
9	5	$4.90	17	5	$12.00	12	6	$10.00	17	6	$11.50
12	6	6.25	20	6	15.00	20	5	14.00	23	8	14.00
16	8	9.00	20	6	Roller 15.00	24	6	16.00	26	9	16.50
18	10	10.60	22¾	7	18.00	31	8	21.50	37	13	24.00
24½	13	14.50	22¾	7	Roller 18.00	38½	10	27.50			
36	19	23.00	25	8	20.00	42	11	29.50			
43	22	30.00	36	11	28.00						
48	25	36.00	48	15	39.00						
			64	20	72.00						

No. 500 Transfer Chain

(PATENTED)





The No. 500 Transfer Chain is peculiarly adapted for horizontally transferring packages, barrels, sheet, skelp and bar iron, lumber, etc.

In the lumber mills, oil refineries and rolling mills, where it has been extensively used, it has given entire satisfaction.

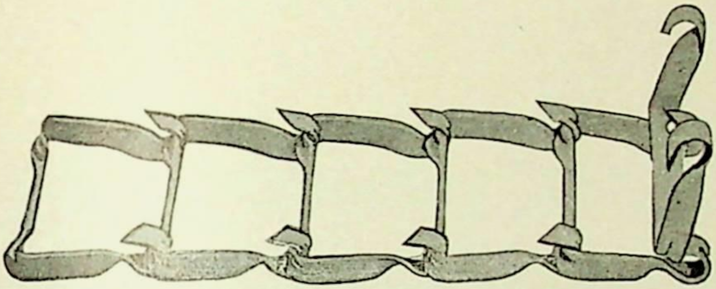
Two or more parallel strands are run in channels, as shown above. The top, only projecting above the channel, permits the material to be loaded upon and taken from it transversely.

Its working strain is 2,000 lbs.

Price per foot						65 cents.
Sprocket Wheels,	8 in.	diameter,	12	teeth	. . .	$3.25
"	" 12	"	" 16	"	. . . .	4.50
"	" 16	"	" 24	"	. . .	6.00

Vulcan Drop-Forged Steel Carrier Chain

(PATENTED)



This chain is detachable, and made by a special machine, which insures absolute uniformity. On account of its peculiar design it is the LIGHTEST, STRONGEST AND SIMPLEST CARRIER CHAIN EVER PRODUCED, and has no equal for conveyors, for such material as SAWDUST, SLABS, CHIPS, EAR CORN and TAN BARK, where intermediate delivery is required. No attachments are required, the end bar performing the duty of the conveyor flight. Vulcan Chain is made in two sizes:

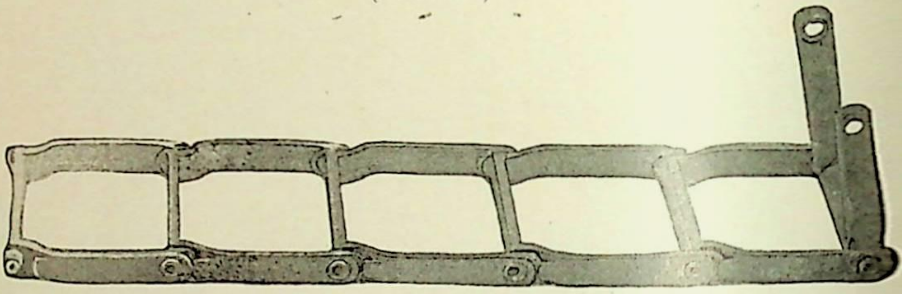
6 in. pitch, 12 in. wide; stands 4,000 lbs. before yielding.
10 " 16 " " 8,000 " " "

Price, 6×12 in., 60c. per foot; 10×16 in., 80c. per foot.

	Sprockets.	Tractions.
Wheels for 6×12 in., 17½ in. diam. . . .	$21.00	$14.00
" " 10×16 " 28¾ " "	50.00	32.00

No. 550 Detachable Sawdust Carrier

(PATENTED)



No. 550 Chain is an economical carrier embodying the Detachable feature, and is well adapted for horizontal conveyors of small capacity handling sawdust, tan bark, etc.

It is 7 in. wide, 6 in. pitch, and has an ultimate strength of 5,000 lbs.

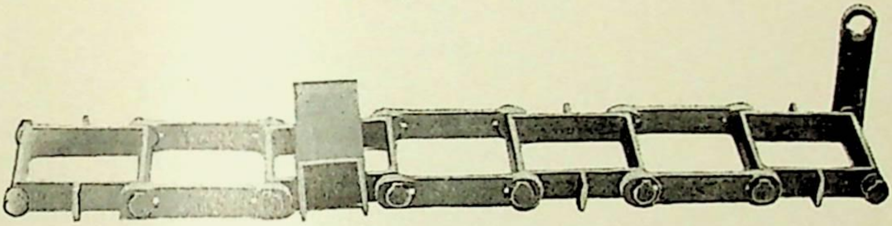
Price per foot . . . . . 40 cents.

Sprocket Wheels for No. 550 Chain

17 in. diameter, 9 teeth	$9.75
21 " " 11 "	12.00

Block Chain

(PATENTED)



Designed for use in inclined and horizontal conveyors, where a strong pushing action is required, as the "H" or box links, which are placed in the chain at intervals, carry everything before them.

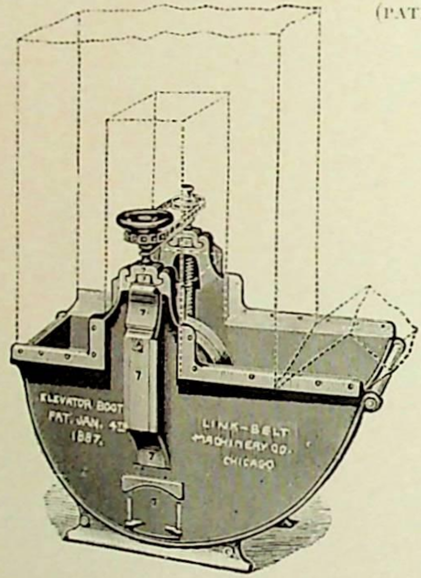
Price (with "H" attachment every 8 feet), 60 cents per foot.

Sprocket Wheels

20 in. diameter, 6 teeth	$12.50
29 " " 9 "	18.50

The Link-Belt Safety Elevator Boot

(PATENTED)



The "SAFETY ELEVATOR BOOT" has the following points of superiority:

FIRST—*The chute end, being longer and wider* than the back, gives free escape for loaded buckets, effectually preventing jamming or breaking of material.

SECOND—*Take-up screws are connected* by Ewart Link-Belting, insuring the same movement up and down of both ends of the shaft.

THIRD—*Hollow take-up screws*, through which oil is carried to the bearings, allowing the boot to be—

FOURTH—*Entirely closed*, and practically dust-tight.

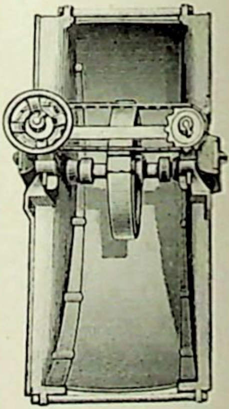
FIFTH—*Tight cleaning doors*, having *no bolts*, and consequently easy to remove.

SIXTH—*A safety device*, for securing the nuts of the take-up screws, making serious breakage impossible.

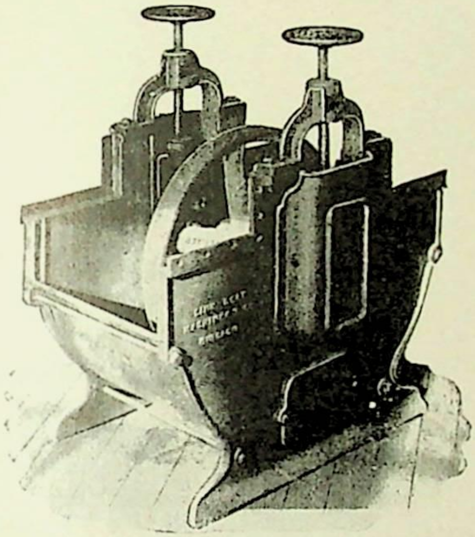
Price List of Safety Elevator Boots

Complete with Sprocket Wheel or Pulley

No.	Size of Bucket.	Diameter of Boot Wheel.	Price, Complete.
5	4 × 3	14	$20 00
5	5 × 4	14½	21 00
5	6 × 4	12½	22 00
7	7 × 4½	18½	35 00
7	8 × 5	16¾	36 00
7	"B" 10 × 4	16¾	38 00
7	10 × 6	16¾ & 17¼	39 00
7	"B" 12 × 5½	17¼	40 00
9	12 × 7	17¼	55 00
9	14 × 7	17¼	58 00
12	12 × 7	20	80 00
12	14 × 7	20	82 00
12	14 × 9	20	83 00
12	16 × 10	17½	84 00
12	18 × 10	17½	85 00
15	20 × 10	30	114 00
15	24 × 10	30	116 00
15	30 × 10	30	120 00
18	20 × 12	36	150 00
18	24 × 12	36	155 00
18	30 × 12	36	160 00



The Cereal Elevator Boot

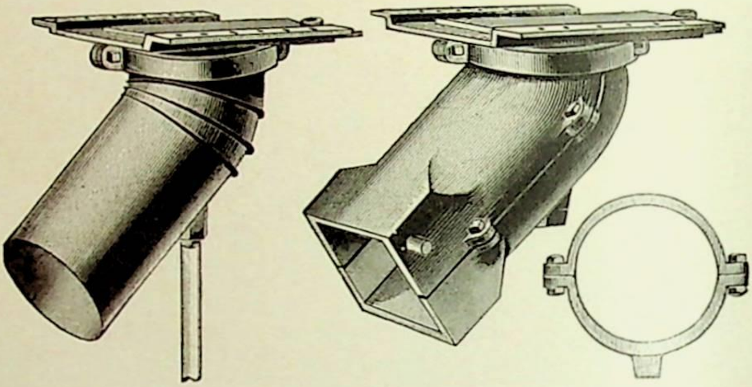


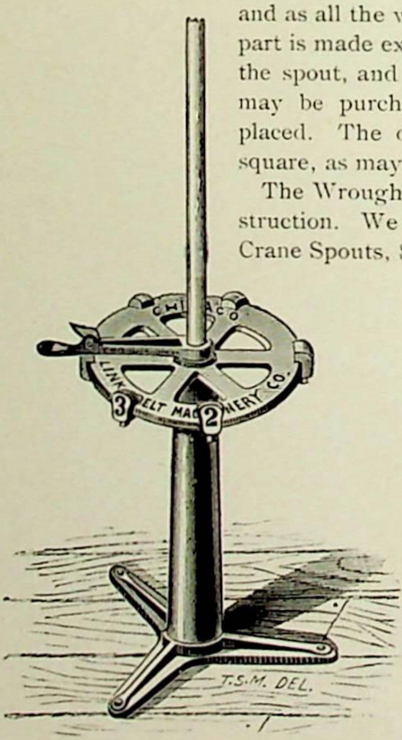
The Cereal Elevator Boot is especially intended for the handling of wheat, oats, corn, etc. It embodies some of the features of the Safety Boot, and is the best boot in the market for the price.

Price List of Cereal Elevator Boots

Diameter of Wheel or Pulley.	Length of Bucket.	Maximum Face of Pulley.	Price of Boot Complete.	Diameter of Wheel or Pulley.	Length of Bucket.	Maximum Face of Pulley.	Price of Boot Complete.
10 inches.	4 inches.	5 inches.	$17 00	18 inches.	12 inches.	13 inches	$44 00
10 "	5 "	6 "	18 00	18 "	14 "	15 "	47 00
12 "	5 "	6 "	20 00	20 "	10 "	11 "	52 00
12 "	6 "	7 "	22 00	20 "	12 "	13 "	54 50
12 "	7 "	8 "	24 00	20 "	14 "	15 "	56 50
14 "	6 "	7 "	28 00	20 "	16 "	17 "	58 50
14 "	7 "	8 "	29 50	20 "	18 "	19 "	60 50
14 "	8 "	9 "	31 00	20 "	20 "	21 "	63 00
16 "	8 "	9 "	33 00	24 "	12 "	13 "	72 00
16 "	9 "	10 "	34 00	24 "	14 "	15 "	75 00
16 "	10 "	11 "	35 00	24 "	16 "	17 "	78 00
16 "	12 "	13 "	37 00	24 "	18 "	19 "	81 00
18 "	8 "	9 "	40 00	24 "	20 "	21 "	84 00
18 "	10 "	11 "	42 00				

Swivel Spouts





We make and carry in stock both the Cast and Wrought Iron Spouts. The Cast Iron Spout is made in two parts and as all the wear is upon the bottom, the lower or bottom part is made extra thick, which greatly prolongs the life of the spout, and when finally worn through, a new section may be purchased at small cost and the worn part replaced. The discharge end is made either round or square, as may be preferred.

The Wrought Iron Spout is of ordinary shape and construction. We also have a large assortment of patterns for Crane Spouts, Shipping, and Bin Bottoms.

Price List

Wrought Iron or Cast Iron Swivel Spout Including Gate

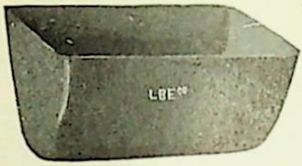
6-inch	$6.00
8 "	8.00
10 "	10.00
12 "	12.00
14 "	14.00
16 "	16.00

Indicator Tables

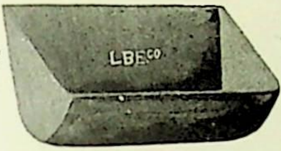
Price

Stand	$6.00
Rod, per foot	.07

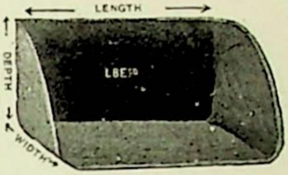
Malleable-Iron Buckets



STYLE A.



STYLE B.



STYLE C.

Our Malleable-Iron Buckets are seamless, strong and smooth, and their rounded corners guarantee free delivery of the material handled. They are made in three styles, as shown above, A, B and C, and of the sizes given in price list.

Style "A" is adapted to the handling of ear corn, cement, coal, phosphate, chemicals, pulp, etc. Style "B" is used for handling ores, stone, etc., in inclined elevators. Style "C" is especially adapted for sugar, clay and sticky materials. No charge is made for punching.

Price List

STYLE A.

Length.	Width.	Depth.	Capacity, Cubic Inches.	Capacity, Quarts.	Price.
4	2¾	2½	13	.2	$0.20
5	3½	3	25	.4	.35
6	4	3½	50	.74	.45
7	4½	4	60	.86	.55
8	5	4	108	1.6	.65
10	6	5	160	2.37	.90
12	7	5½	300	4.4	1.25
14	7	5½	350	5.1	1.75
18	10	7	1175	17.5	4.00

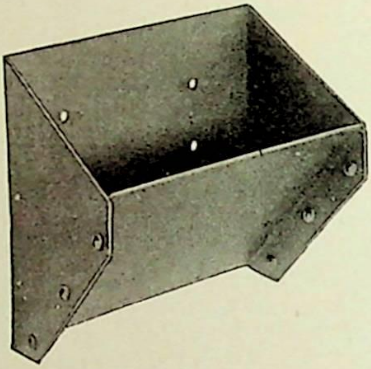
STYLE B.

Length.	Width.	Depth.	Capacity, Cubic Inches.	Capacity, Quarts.	Price.
4	1½	1	4		.15
8	3½	2½	48	.7	.50
10	4	3	60	.9	.70
12	5½	4	135	2.	.90

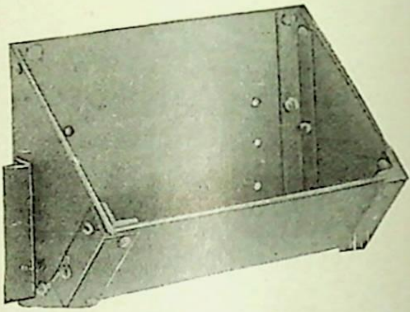
STYLE C.

Length.	Width.	Depth.	Capacity, Cubic Inches.	Capacity, Quarts.	Price.
8	4½	4	84	1.	.50
10	5	4	120	1.5	.70
12	5	4	144	2.	.90
16	7	5½	380	6.5	1.80

Steel Elevator Buckets

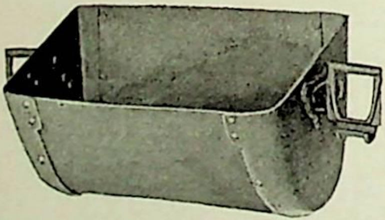


D.

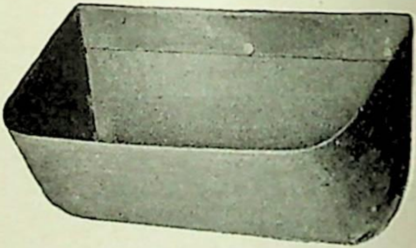


E.

Elevator Buckets of this type are made 14 inches long and upward, of heavy Steel plate, are very strong, and admirably adapted for handling coal, rock, ore, or any rough material in large quantities and under severe conditions. Special sizes, shapes and thicknesses made to order, prices for which will be quoted upon application.



MALLEABLE END BUCKET



SALEM BUCKET

MALLEABLE END BUCKETS have bodies made of a single sheet of steel, securely riveted to heavy malleable iron ends, which protect the body and strengthen the corners.

These buckets have high backs and greater width than the ordinary forms, giving them large carrying capacity.

They are especially adapted to the G attachments as employed in centrally hung and Perfect Discharge Elevators.

"SALEM" BUCKETS are light, strong, made entirely of steel, and well adapted to handle smooth, finely divided loose material, as grain, etc.

Price List of Malleable End Buckets

Size	12 × 7	14 × 7	16 × 7	18 × 7	20 × 7	12 × 8	14 × 8	16 × 8	18 × 8	20 × 8	24 × 8
Capacity in cu. ins.	340	400	460	510	560	430	500	575	630	720	790
Capacity in quarts	5	6	7	7⅔	8⅓	6½	7½	8½	9¾	10½	12
No. of metal in body	18	18	16	16	16	16	16	16	14	14	14
Price	$1.60	1.65	1.75	1.85	1.95	1.90	2.00	2.10	2.25	2.40	2.70

Size	30 × 8	36 × 8	12 × 9	14 × 9	16 × 9	18 × 9	20 × 9	24 × 9	30 × 9	36 × 9
Capacity in cu. ins.	1080	1200	500	585	670	750	830	1000	1250	1500
Capacity in quarts	16	17¾	7½	8⅔	10	11	12⅓	15	18	22¼
No. of metal in body	14	14	16	16	16	14	14	14	14	14
Price	$3.10	3.50	2.30	2.40	2.50	2.70	2.85	3.10	3.40	3.70

Price List of "Salem" Buckets

Size.	Capacity in cu. ins.	Gauge of Steel.	Price.	Size.	Capacity in cu. ins.	Gauge of Steel.	Price.
2 × 2	3.	25	$0.05	11 × 6	240.	18	$0.39
2½ × 2¼	7.	24	.05	12 × 6	262.	18	.40
3 × 2½	10.	24	.06	14 × 6	306.	18	.47
3½ × 2½	12.	24	.06	16 × 6	349.	18	.48
3 × 3	15.	23	.07	18 × 6	393.	18	.60
3½ × 3	18.	23	.07	20 × 6	447.	18	.65
4 × 3	20.	23	.08	10 × 7	284.	18	.40
4½ × 3	23.	23	.08	11 × 7	313.	18	.45
4 × 3½	28.	22	.09	12 × 7	341.	18	.50
4½ × 3½	32.	22	.10	14 × 7	398.	18	.58
5 × 3½	36.	22	.10	16 × 7	455.	18	.65
5 × 4	51.	22	.11	18 × 7	512.	18	.75
5½ × 4	44.	21	.12	20 × 7	569.	18	.79
6 × 4	49.	21	.12	16 × 8	570.	18	.80
7 × 4½	89.	20	.16	18 × 8	640.	18	.85
8 × 5	120.	19	.20	20 × 8	713.	18	.90
9 × 9	135.	19	.23	22 × 8	784.	18	.93
10 × 5½	174.	19	.29	24 × 8	855.	18	.97
10 × 6	213.	18	.39				

NOTE.—These buckets will be made of heavier gauge when so ordered.

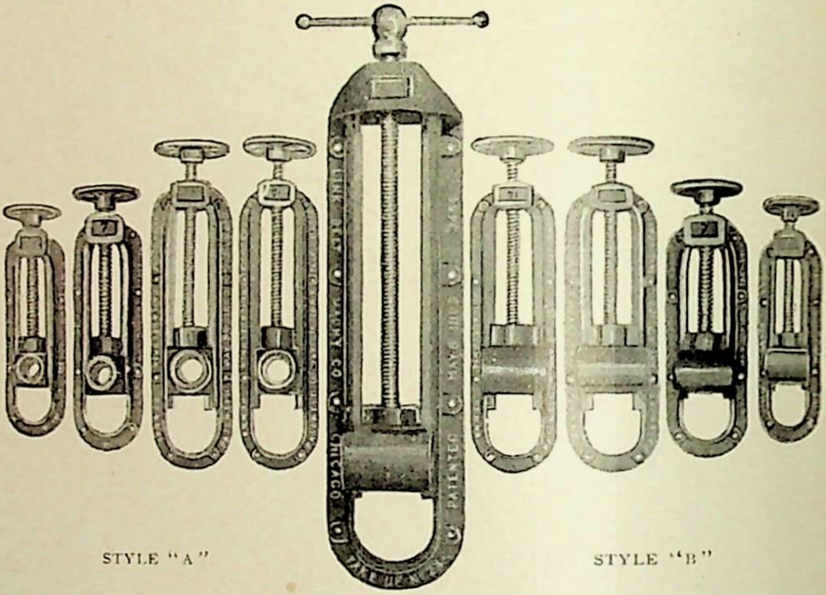
Price List Iron Work for Single Strand Grain Elevator Head

Capacity Bushels per hour.	Maximum Height Feet	Rev. of Head per min.	No. of Link-Belt.	Size of Buckets.	Diam. Head Wheel	SHAFT.		No. of Bearings	No. of Boot.	Price
						Length Ins.	Space for Driver. Ins.			
50	80	46	35	3 × 2½	18¼	26	7¼	2	10	$14.00
100	80	45	45	4 × 3	20¼	30	6¾	2	10	16.35
130	80	45	55	4 × 3½	20¼	30	6¾	2	12	16.35
200	80	44	57	5 × 3½	22	30	7¾	2	12	18.00
240	80	44	57	5 × 4	22	30	7¾	2	12	18.00
300	40	43	57	6 × 4	24¼	36	7¼	2	14	20.50
300	80	43	67	6 × 4	24¼	36	7¼	2	14	20.50
400	40	43	77	7 × 4½	24¼	36	8	2	14	20.50
400	80	43	78	7 × 4½	24¾	36	8	2	14	21.65
660	40	42	78	8 × 5	28½	36	9	2	16	22.75
660	80	42	85	8 × 5	30	40	9	2	16	28.40
870	40	41	78	9 × 5	30½	40	9¾	2	16	25.90
870	80	41	85	9 × 5	30	42	10⅜	2	16	31.25
1,000	40	41	85	10 × 5½	33	51	9⅜	3	16	38.55
1,000	80	41	95	10 × 5½	33	51	9⅜	3	16	38.55
1,230	40	40	95	10 × 6	35½	51	9⅝	3	18	40.15
1,230	80	40	108	10 × 6	36	54	10¼	3	18	45.75
1,500	40	40	95	11 × 6	35½	51	10⅜	3	18	40.15
1,500	80	40	108	11 × 6	36	54	11¾	3	20	45.75
1,900	40	40	108	12 × 6	36	54	10¼	3	20	45.75
1,900	80	38	122	12 × 6	42½	56	10⅝	3	20	62.10
2,500	50	40	108	12 × 7	36	54	10¼	3	20	45.75
2,500	75	38	122	12 × 7	42½	56	10⅝	3	24	62.10

Price List Iron Work for Double Strand Grain Elevator Heads

Capacity Bushels per hour.	Maximum Height Feet.	Rev. of Head per min.	No. of Link-Belt.	Size of Buckets.	Diam. Head Wheel	SHAFT.		No. of Bearings.	No. of Boot.	Price.
						Length Ins.	Space for Driver. Ins.			
1,900	50	40	77	12 × 6	36	60	16	3	18	$37.00
1,900	75	40	88	12 × 6	37	62	17	3	18	43.45
2,500	50	40	78	12 × 7	37	62	17	3	20	43.45
2,500	75	40	88	12 × 7	37	65	17½	3	20	49.15
2,200	50	40	78	14 × 6	37	60	16	3	18	37.80
2,200	75	40	88	14 × 6	37	62	17	3	18	43.45
2,800	50	38	78	14 × 7	42	62	17	3	20	46.00
2,800	75	40	88	14 × 7	37	65	17½	3	20	49.15
2,700	50	38	78	16 × 6	42	67	17	3	18	46.70
2,700	75	40	85	16 × 6	35½	72	18½	3	18	53.80
3,200	50	38	78	16 × 7	42	67	17	3	20	47.70
3,200	75	40	85	16 × 7	35½	74	18	3	20	61.50
3,300	50	38	78	18 × 6	42	67	18	3	18	46.70
3,300	75	40	85	18 × 6	35½	74	18	3	18	61.50
3,900	50	40	88	18 × 7	37	72	18½	3	20	50.30
3,900	75	40	85	18 × 7	35½	74	18	3	20	61.50
3,800	50	40	85	20 × 6	35½	72	18½	3	18	53.90
3,800	75	36	108	20 × 6	48	74	18	3	18	72.60
4,800	50	40	85	20 × 7	35½	74	18	3	20	61.50
4,800	75	36	108	20 × 7	48	76	18¼	3	20	81.00
12,000	50	36	108	22 × 8	48	80	18¼	3	24	90.80
12,000	75	38	122	22 × 8	42½	86	18¾	3	24	102.60
17,000	50	36	108	24 × 8	48	86	18¾	3	24	102.50
17,000	75	38	122	24 × 8	42½	92	19¾	3	24	145.50

"Take=ups"



The Take-ups of our manufacture combine lightness, strength and beauty. They are made in two styles, "A" and "B" and sizes above No. 20 have handles instead of hand wheels, as shown above.

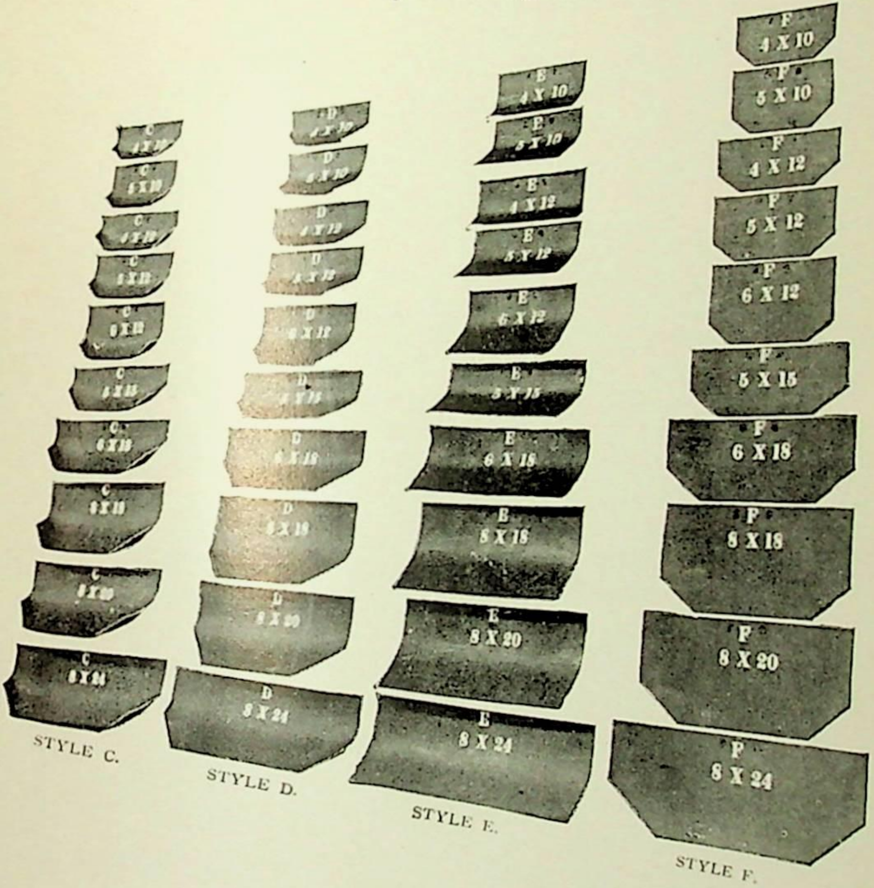
The number of the Take-up indicates its length of adjustment in inches.

Price List

No. of Frame.	Diameter of Shaft.	Price each, A or B.	No. of Frame.	Diameter of Shaft.	Price each, A or B.
4	$\frac{11}{16}$	$1.75	20	$2\frac{7}{16}$	$9.00
4	$\frac{13}{16}$	1.90	20	$2\frac{9}{16}$	9.50
4	$\frac{15}{16}$	2.00	20	$2\frac{11}{16}$	10.00
5	$1\frac{3}{16}$	2.55	20	$2\frac{13}{16}$	11.00
5	$1\frac{5}{16}$	2.70	24	$2\frac{15}{16}$	13.50
7	$1\frac{7}{16}$	3.25	24	$3\frac{7}{16}$	14.00
7	$1\frac{9}{16}$	3.50	24	$3\frac{15}{16}$	15.00
7	$1\frac{11}{16}$	4.00	36	$2\frac{15}{16}$	19.00
9	$1\frac{15}{16}$	4.75	36	$3\frac{7}{16}$	19.50
9	$2\frac{3}{16}$	5.00	36	$3\frac{15}{16}$	20.00
12	$2\frac{3}{16}$	6.00	48	$3\frac{15}{16}$	35.00
12	$2\frac{5}{16}$	6.25	60	$3\frac{15}{16}$	40.00
12	$2\frac{7}{16}$	6.75	72	$4\frac{7}{16}$	50.00

NOTE.—In ordering, give diameter of shaft for which Take-up is desired.

Conveyor Flights



All our Flights are drop-forged in dies, and have all holes punched at one operation, making them uniform.

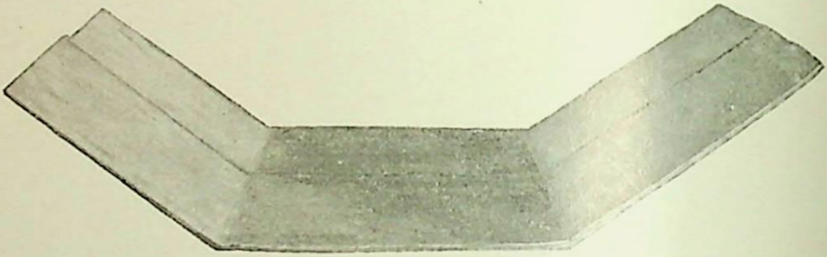
The curves are those which have been adopted after several years of experience. The style C is curved in both its surface dimensions, thereby making a noiseless and strong scraper.

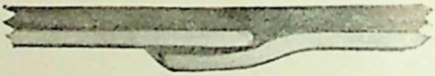
Price List

STYLE C, D, E, F, OR PLAIN SCRAPERS.

Size	4 × 10	4 × 12	5 × 10	5 × 12	5 × 15	6 × 12	6 × 18	8 × 18	8 × 20	8 × 24
Price	$0.20	.22	.23	.25	.30	.30	.40	.60	.65	.75

Standard Drop Forged Steel Conveyor Trough



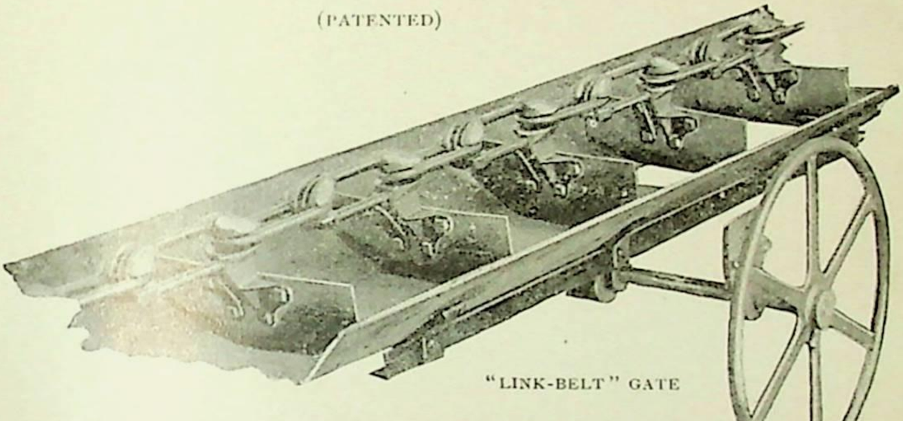


THE JOINT

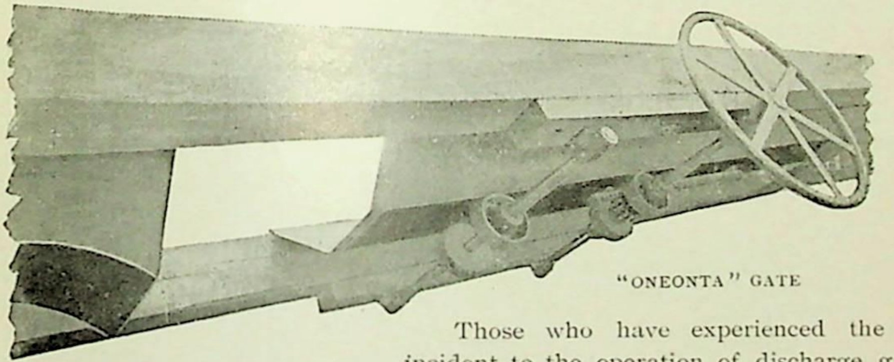
The Standard Trough is made in sections two feet long and of widths to fit all our standard flights. It is drop forged in dies, making it absolutely true and flat on the bottom and sides insuring uniform wear over its surface, making it the most durable conveyor trough ever placed on the market. The sections can easily be handled by one man.

Discharge Gates for Conveyors

(PATENTED)



"LINK-BELT" GATE



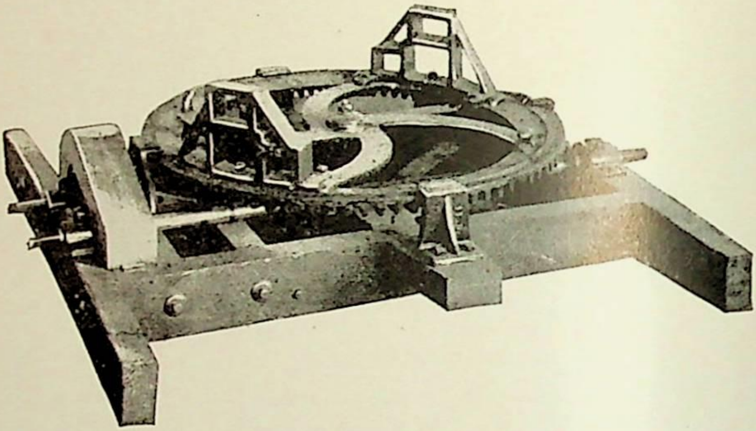
"ONEONTA" GATE

Those who have experienced the difficulties incident to the operation of discharge gates of the ordinary types will recognize the advantages of these improved forms, which are the best that have been devised for their respective purposes. The "Oneonta" Gate will discharge lump material of any size that it is possible to convey, as the separation of the trough is complete from side to side, the flights being guided into the trough after passing the opening by the bell mouth.

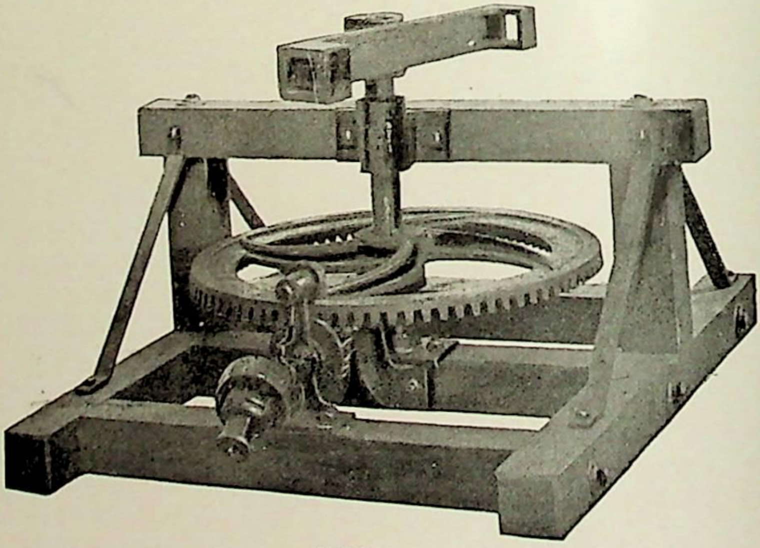
The "Link-Belt" Gate is thoroughly efficient in handling fine material and moderate sized lumps, and is constructed to be operated with rack and pinion, the same as the "Oneonta" Gate.

Both forms of gates can be opened and closed while the Conveyor is in operation, which is a very desirable feature effecting a great saving of time.

Horse Powers



STYLE A.



STYLE B.

Horse Powers

The "Link Belt" Bevel Gear Horse Powers are strong, compact, reliable, portable, and are extensively employed for driving small elevators, conveyors, etc.

They are made for one, two or four horses.

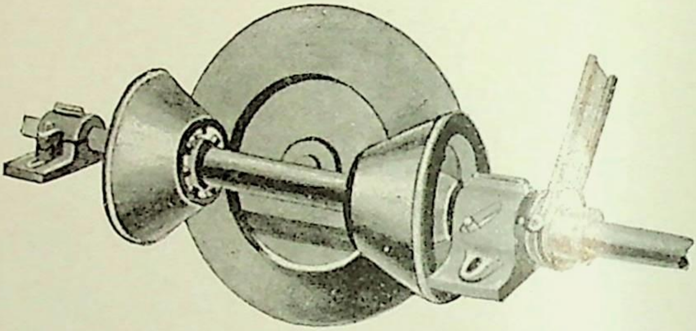
Horse power room should not be less than 26 x 26 feet in the clear.

Price List

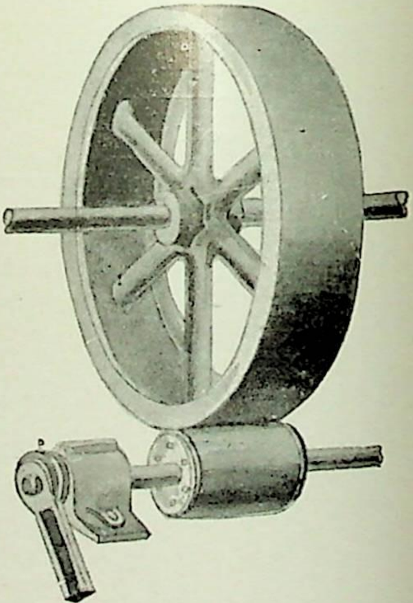
No.	Description.	Horses.	Style.	Geared to	Revolutions Per Minute.	Price.
00	Single Speed Power.	1	B	6 to 1	18	$60.00
0	Single Speed Power.	1 and 2	B	7 to 1	21	80.00
1	Single Speed Power.	1 and 2	A	7 to 1	21	50.00
2	Single Speed Power.	4	A	8⅔ to 1	26	80.00
3	Double Speed Power.	1 and 2	A	20 to 1	60	55.00
4	Double Speed Power.	4	A	24⅔ to 1	74	85.00
5	Triple Speed Power.	1 and 2	A	....	....	60.00
6	Triple Speed Power.	4	A	....	....	90.00

Above Price includes one Tumbling Rod.

Paper and Iron Friction Gearing



Friction Gearing is especially desirable where machinery is frequently thrown in and out of gear, and for reverse motions, being engaged and disengaged by a slight movement of the lever attached to the ECCENTRIC OR END-THRUST BOX which forms one of the journal bearings, thus dispensing entirely with a clutch. Friction gearing is NOISELESS IN OPERATION, and may be made to transmit any amount of power required, from the lightest to the heaviest, and although more expensive in FIRST COST, is, for long-continued service, MUCH CHEAPER than toothed gearing, as when properly adjusted there is virtually NO WEAR upon them.



Paper and Iron Friction Gears are being extensively adopted in grain' elevators, and we have supplied them for driving the heavy machinery in the largest lumber mills as well as the light, rapid-running tools in watch factories.

Spur Friction Gears

Face in inches—Prices each

Diam.	4½	5½	6½	7½	8½	9½	10½
6	$8.25	$8.75	$9.50	$10.00	$11.25	$12.50	$14.50
7	8.75	9.50	10.00	10.75	12.50	14.50	16.25
8	9.50	10.00	11.25	12.00	13.75	15.75	17.50
9	10.00	10.75	12.25	13.50	16.25	17.50	18.50
10	11.25	12.00	13.25	14.50	17.50	18.25	21.25
12	13.75	15.00	16.25	17.50	18.50	20.00	23.25
14	16.25	17.50	18.50	20.00	21.25	23.75	27.50
16	18.25	18.50	20.75	22.50	25.75	28.50	32.50
18	20.00	22.00	23.75	26.25	29.50	32.50	37.00
20	22.00	24.50	27.00	28.50	32.00	35.00	40.00
22	24.50	26.25	29.50	32.00	33.75	37.50	43.25
24	27.00	28.50	31.25	33.75	35.75	40.00	45.00
26	28.50	31.25	33.75	35.75	37.50	41.25	47.50

Bevel Friction Gears

Gaining Speed

Proportion 1 to 1½ Diam. Face.	Proportion 1 to 2 Diam. Face.	Proportion 1 to 2½ Diam. Face.	Proportion 1 to 3 Diam. Face.	Proportion 1 to 3½ Diam. Face.	Proportion 1 to 4 Diam. Face.	Proportion 7 to 20 Diam. Face.
6 × 2 4 × 1⅓	8 × 2½ 4 × 2	10 × 3 4 × 2½	12 × 3 4 × 2½	14 × 3 4 × 2½	16 × 3 4 × 2½	20 × 4½ 7 × 4
7½ × 2⅜ 5 × 1⅞	12 × 3¾ 6 × 3	15 × 4¼ 6 × 3½	18 × 4¼ 6 × 3½	21 × 4¼ 6 × 3½	24 × 4½ 6 × 4	Proportion 1 to 1¼ Diam. Face.
10½ × 3⅛ 7 × 2⅝	16 × 4½ 8 × 4	20 × 5¾ 8 × 5	24 × 6 8 × 5	28 × 5½ 8 × 4¾	32 × 6 8 × 5	20 × 5½ 16 × 5
13½ × 4⅛ 9 × 3⅜	18 × 5½ 9 × 4½	25 × 7 10 × 6	30 × 8 10 × 7	35 × 7 10 × 6	40 × 8 10 × 7	
15 × 4½ 10 × 4	20 × 5¾ 10 × 5	30 × 8½ 12 × 7½	36 × 9½ 12 × 8½	42 × 9 12 × 8		
18 × 5¼ 12 × 4½	24 × 6¾ 12 × 6	35 × 9½ 14 × 8½	42 × 10½ 14 × 9½			
24 × 6¾ 16 × 6	28 × 8 14 × 7	40 × 11 16 × 10				
24 × 8¾ 16 × 8	32 × 9 16 × 8					
30 × 8½ 20 × 7½	40 × 11 20 × 10					
36 × 10 24 × 9						
42 × 11½ 28 × 10½						

NOTE.—Paper friction is driver in all cases.

Bevel Friction Gears

Reducing Speed

Proportion 1½ to 1 Diam. Face	Proportion 2 to 1 Diam. Face	Proportion 2½ to 1 Diam. Face	Proportion 3 to 1 Diam. Face	Proportion 4 to 1 Diam. Face	Proportion 5 to 1 Diam. Face	Proportion 6 to 1 Diam. Face
4 × 2 6 × 1½	4 × 2¼ 8 × 1¾	4 × 2 10 × 1½	4 × 2½ 12 × 2	4 × 3½ 16 × 3	3½ × 3 17½ × 2½	3 × 2½ 18 × 2
5 × 2½ 7½ × 1¾	6 × 3 12 × 2½	6 × 3¾ 15 × 3	6 × 4¼ 18 × 3½	5 × 4¾ 20 × 4	4½ × 4¼ 22½ × 3½	4 × 3¾ 24 × 3
7 × 3 10½ × 2½	8 × 4 16 × 3½	8 × 5¼ 20 × 4½	8 × 5¾ 24 × 5	7 × 6¾ 28 × 6	6 × 5¾ 30 × 5	5 × 6 30 × 5
9 × 4 13½ × 3¼	8½ × 4½ 17 × 4	10 × 6½ 25 × 5½	10 × 6¾ 30 × 6	9 × 9 36 × 8	8 × 8 40 × 7	7 × 8 42 × 7
12 × 5½ 18 × 4½	10 × 5¾ 20 × 5	12 × 7½ 30 × 6½	12 × 8¾ 36 × 8	10 × 9½ 40 × 8½		
16 × 6¾ 24 × 5¾	12 × 6¾ 24 × 6	14 × 9 35 × 8	14 × 10½ 42 × 9½			
20 × 8½ 30 × 7½	12 × 6¾ 24 × 6	16 × 10 40 × 9				
24 × 10 36 × 9	14 × 8 28 × 7					
28 × 11½ 42 × 10½	16 × 9 32 × 8					
	20 × 11 40 × 10					

Proportion 11/5 to 1 Diam. Face
10 × 4½ 12 × 4
Proportion 1⅔ to 1 Diam. Face
9 × 5½ 15 × 4
Proportion 33/5 to 1 Diam. Face
5 × 5 18 × 4
Proportion 11¼ to 9 Diam. Face
18 × 5¾ 22½ × 5
Proportion 2⅔ to 1 Diam. Face
9 × 6¾ 24 × 6
Proportion 3½ to 1 Diam. Face
8 × 6 28 × 5

NOTE.—Paper friction is driver in all cases.

Mitre Friction Gears

Diam	Face.				
	2½	3½	4½	5½	6½
9	1 15/16	1 11/16			
10	2 3/16	2 3/16	1 15/16		
12	3 7/16	2 15/16	2 7/16	1 15/16	
14	6 15/16	5 15/16	3 15/16	2 15/16	
16	8 7/16	7 7/16	5 15/16	4 15/16	3 7/16

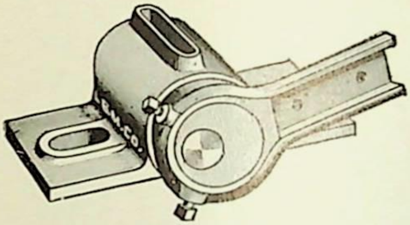
Diam.	Face.								
	2½	3½	4½	5½	6½	7½	8½	9½	10½
18	9 7/16	8 7/16	6 7/16	5 7/16	4 7/16	3 7/16			
20	11 15/16	9 15/16	7 15/16	6 7/16	5 7/16	4 7/16	3 11/16		
22	13 15/16	11 15/16	9 15/16	7 15/16	6 7/16	5 7/16	4 11/16	3 15/16	
24	15 15/16	13 15/16	11 15/16	10 7/16	8 15/16	7 7/16	6 7/16	5 7/16	4 7/16
26	17 15/16	16 7/16	14 15/16	13 7/16	10 15/16	9 15/16	8 15/16	7 15/16	7 11/16

NOTE.—Figures in spaces denote the maximum size of shafts on which gears can be used, For example: 20″ diam. × 5½″ face, largest size of shaft, 6 7/16″.

Eccentric and End-Thrust Boxes

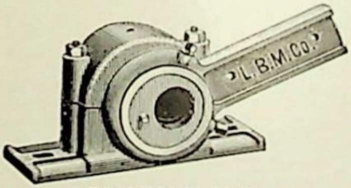
For use with Frictional Gearing

The Eccentric Boxes have babbitted bearings and are of two styles—Rigid and Ball and Socket. The latter, while more expensive in first cost, adjust themselves to the proper line of contact between the gears, and are self-oiling.



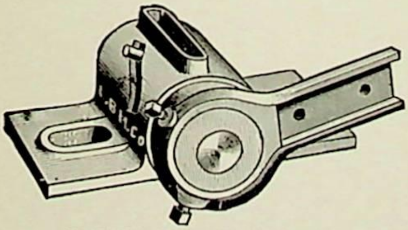
ECCENTRIC BOX.

Used for engaging and disengaging Spur Friction Gearing.



ECCENTRIC BOX.

Ball and Socket and Self-Oiling.



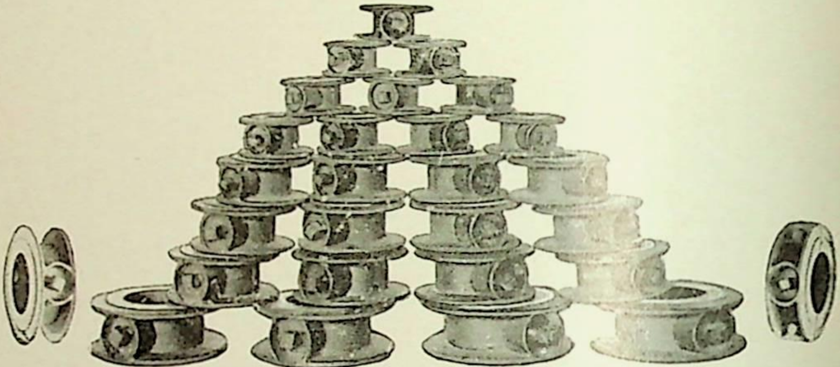
PATENT END-THRUST BOX.

Used for engaging and disengaging Bevel and Miter Friction Gearing.

Size of Box.	PRICES.		
	Eccentric Box, Rigid.	Eccentric Box, Ball and Socket.	End-Thrust Box, Rigid.
$1\frac{3}{16}$	$7.00	$7.70	$8.25
$1\frac{7}{16}$	8.25	9.10	9.50
$1\frac{11}{16}$	9.50	10.50	11.00
$1\frac{15}{16}$	11.00	12.10	12.75
$2\frac{3}{16}$	12.90	16.50	15.00
$2\frac{7}{16}$	14.50	14.20	16.75
$2\frac{11}{16}$	16.60	18.20	19.50
$2\frac{15}{16}$	18.75	20.60	21.75
$3\frac{3}{16}$			
$3\frac{7}{16}$			
$3\frac{11}{16}$			
$3\frac{15}{16}$			
$4\frac{7}{16}$			
$4\frac{15}{16}$			

"Safety" Collars

(PATENTED)



The superiority of the "Safety' Collar over the ordinary form, with projecting set screw, will be appreciated.

There is no projection beyond its circumference, and consequently nothing to catch the clothing with disastrous results.

When collars are split for convenience of fixing them upon the shaft, the clamping bolts are also placed entirely within the flanges.

"Safety" Collars are accurately bored and nicely faced, the unfinished portions being neatly painted.

Price of Collars

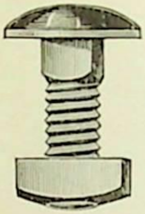
Diam. of Shaft	$\frac{15}{16}$	$1\frac{3}{16}$	$1\frac{7}{16}$	$1\frac{11}{16}$	$1\frac{15}{16}$	$2\frac{3}{16}$	$2\frac{7}{16}$	$2\frac{11}{16}$	$2\frac{15}{16}$	$3\frac{3}{16}$
Price	$0.70	.80	1.00	1.20	1.40	1.60	1.80	2.10	2.40	2.70

Diameter of Shaft. . .	$3\frac{7}{16}$	$3\frac{11}{16}$	$3\frac{15}{16}$	$4\frac{7}{16}$	$4\frac{15}{16}$	$5\frac{7}{16}$	$5\frac{15}{16}$	$6\frac{7}{16}$	$6\frac{15}{16}$
Price	$3.00	3.30	3.60	4.70	5.90	7.20	8.60	10.10	11.70

For Split Collars up to and including $2\frac{7}{16}$ in., add 50 cts. to list; for all sizes above $2\frac{7}{16}$, add 25% to list.

Elevator and Conveyor Bolts

These bolts are of superior quality, and made expressly for the attachments and uses stated.



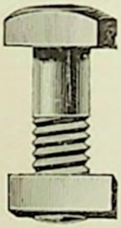
Button Head Bolts

3/16 × 1/2 .... $1.25 per 100

For attachments for Nos. 32 A^1 K^1, 33 A^1 A^2, K^1, 34 A^1, K^1, 35 A^1 A^2 K^1, 42 K^3 K^6, 45 A^3 G^1 K^1 K^3, 52 G^1, 55 A^1 A^2 K^1.

1/4 × 5/8 .... $1.50 per 100

For Nos. 35 A^1 C^1, 42 A^1, 45 A^1 G^1, 52 A^1, 55 C^1, 57 A^1, 62 A^1, 67 A^1, 57 K^1, 62 K^1, 67 K^1, 75 K^1, 77 K^1.



Square Head Bolts

1/4 × 3/4 .... $2.80 per 100

For Nos. 57 F^2, 67 F^2, 77 G^1, 78 A^1, G^1, 88 G^6, 103 G^6.

5/16 × 3/4 .... $3.20 per 100

For Nos. 78 K^4, 85 K^2, 88 A^3 K^1, 95 K^2.

5/16 × 1 .... $3.20 per 100

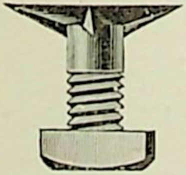
For Nos. 78 F^2, 88 F^2.

3/8 × 3/4 .... $3.20 per 100

For Nos. 85 K^7, 103 A^2 K^1, 105 K^2, 108 K^2 K^3, 122 K^2.

3/8 × 1 .... $3.20 per

For Nos. 83 G^1, 85 F^2, 95 F^2, 108 F^2 G^1, 122 F^2, and for 1/2, 5/8 and 3/4 inch F. & K. Dodge Attachments.

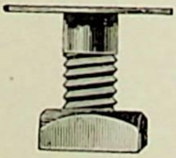


Corrugated Head Bolts

FOR USE WITH LEATHER, COTTON OR RUBBER BELTING.

1/4 × 3/4 .... $2.00 per 100

1/4 × 1 .... 2.50 per 100



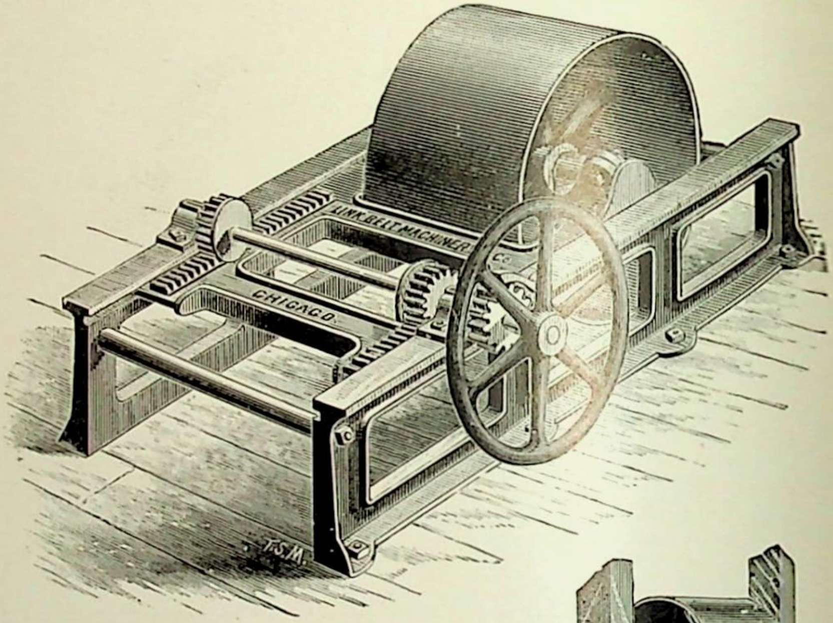
Eclipse Bolts

FOR USE WITH LEATHER, RUBBER OR COTTON BELTING.

1/4 × 3/4 .... $1.25 per 100

1/4 × 1 .... 1.50 per 100

Belt Tighteners

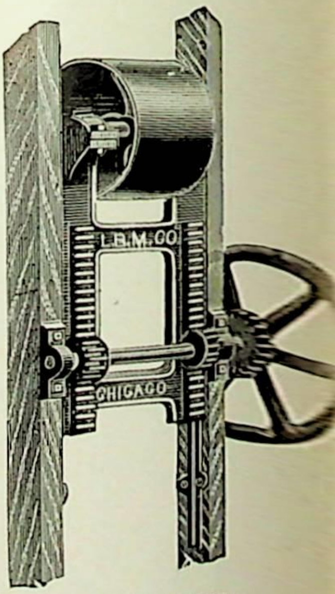

LINK-BELT MACHINERY CO.
CHICAGO.
T.S.M.

HORIZONTAL TIGHTENER

These Belt Tighteners are substantial, well finished, and have accurately balanced straight-faced pulleys. A stock of these tighteners is carried in Chicago, enabling us to fill orders promptly.

Price List

No.	Length of Adjust. ment.	Size of Pulley, Diameter Face.	Diam. of Shaft.	Price, Horizontal Tightener.	Price, Vertical Tightener.
00	$1\frac{1}{2}$ ft.	12 × 9	$1\frac{11}{16}$	$37.50	$30.00
0	$1\frac{2}{3}$ "	18 × 12	$1\frac{11}{16}$	50.00	40.00
1	2 "	24 × 14	$1\frac{15}{16}$	70.00	56.00
2	$3\frac{1}{2}$ "	28 × 20	$2\frac{7}{16}$	100.00	82.00
3	4 "	30 × 26	$2\frac{11}{16}$	160.00	120.00
4	5 "	42 × 38	$2\frac{15}{16}$	300.00	250.00



VERTICAL TIGHTENER

The Transmission of Power

By Means of

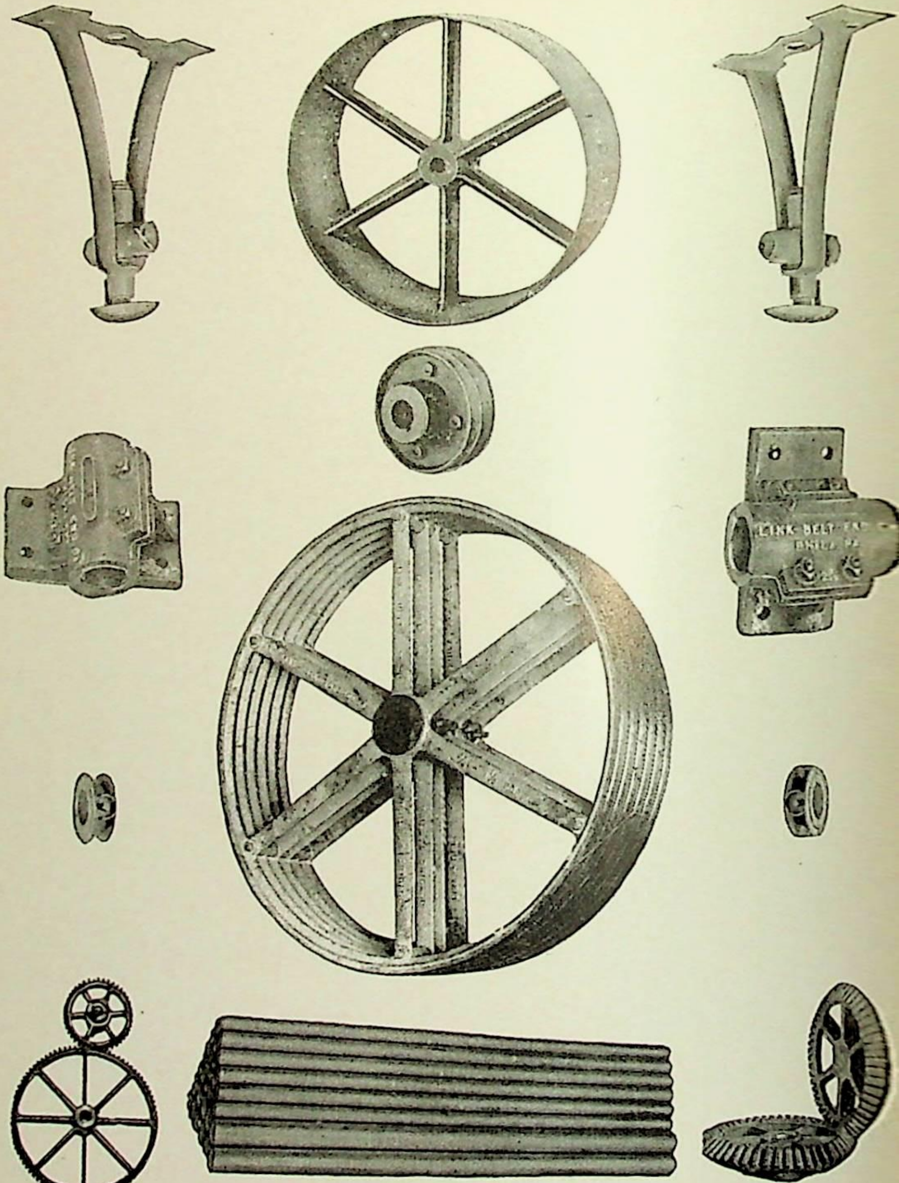
Manila Rope

Is the subject of a special catalogue issued by us, which describes several installations erected by us together with the details of the Sheaves, Idlers, Rope, and Tension Carriages employed in the Link-Belt System of rope transmission.

Saw Mill Machinery

Is the title of a pamphlet devoted to the machinery constructed by us for saw and pulp mills, and describes Log Hauls, Emery Automatic Lumber Trimmers, Slab Slashers, Lumber Sorters, Chip and Offal Conveyors, etc.

The above Catalogues will be
Mailed you upon request. . .



POWER TRANSMISSION MACHINERY

Power Transmission Machinery

In connection with Link-Belting, Elevating and Conveying Machinery, we make from our patterns and keep constantly in stock a large assortment of

PULLEYS for double or single belt, accurately turned, bored and balanced.

HANGERS AND FLOOR STANDS of strong patterns, either single or double braced, and of various drops.

POST HANGERS AND POST BOXES, adjustable and non-adjustable, to fit all sizes of shafts.

PILLOW BLOCKS, split at 45° or parallel with the base, babbitted or bored, self-oiling or plain. Very large stock; all sizes.

SOLID JOURNAL BOXES babbitted or bored.

STEP BOXES. adjustable, with brass thrust washer and oil pot. Stock sizes $\frac{15}{16}$ in. to $2\frac{15}{16}$ in.

WALL BOXES AND BRACKETS, all sizes.

GEARS, Spur, Bevel, Mitre, Mortise and Paper Friction. In fact, all kinds, and long lists of all.

MORTISE GEARS, where the wheel is iron, filled with wooden teeth, and the pinion solid metal. When the teeth are all given the true form by our special machine, the wheels have a long life, combined with smooth and quiet running qualities.

FLANGE COUPLINGS, made by special standard jigs, insuring uniformity and changeability.

The above are fully listed in our pamphlet of Appliances for the Transmission of Power. It will be mailed at your request.

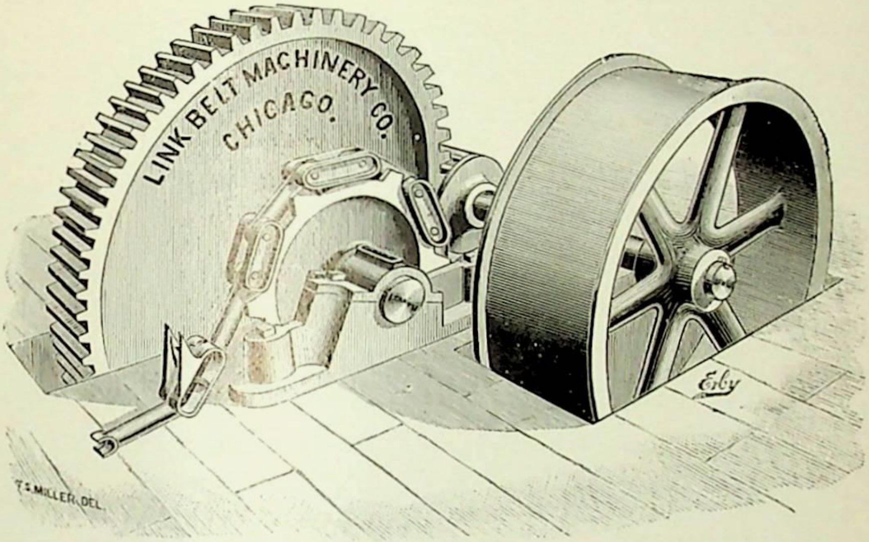
Saw-Mill Machinery

The constant demand for new and improved machinery, caused by the sharp competition in the Saw-Mill industry has led us to devote a considerable time to the perfection of *our work* in this line, and we are able to offer *continuous handling machinery* which will take the logs in their rough state, and handle every part of them until the finished lumber is loaded on wagon, car or boat and the offal piled in the dump or burned under the boiler.

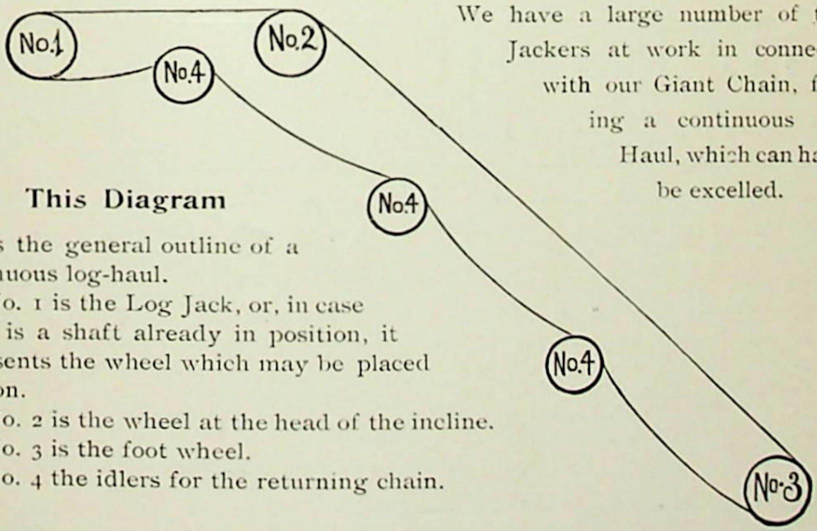
This machinery, as regards economy, is equal to and in many cases surpasses the machines used in the sawing and dressing of the lumber.

In addition to the devices for the economic and rapid handling of the mill product, we build a number of special machines, a few of which are mentioned and illustrated upon pages 83, 85, 88, 91.

Iron Frame Log Jack


LINK-BELT MACHINERY CO.
CHICAGO.
Erby
T.S.MILLER.DEL.

Our Iron Frame Log Jack as shown in above cut has a strong, heavy frame, well proportioned for the work to be done. The driving pinion is housed, the pulley double flanged, and the gear wheel has a solid plate center.



We have a large number of these Jackers at work in connection with our Giant Chain, forming a continuous Log-Haul, which can hardly be excelled.

This Diagram

shows the general outline of a continuous log-haul.

No. 1 is the Log Jack, or, in case there is a shaft already in position, it represents the wheel which may be placed thereon.

No. 2 is the wheel at the head of the incline.

No. 3 is the foot wheel.

No. 4 the idlers for the returning chain.

The Emery Lumber Trimmer

(PATENTED)

This is without exception the best trimmer in the market, and no modern saw mill is complete without it. There are over 600 of these Trimmers in successful operation.

They are made either right or left hand, and with or without front and rear extensions to suit the requirements of the mill.

These machines are set up and subjected to a running test before leaving our works, and we thoroughly guarantee them in every respect.

Their peculiar advantages are:

1st. There is but one power connection; all saws and the feed mechanism being driven by one shaft.

2d. All saws remain below the surface of the trimmer table except the two in service.

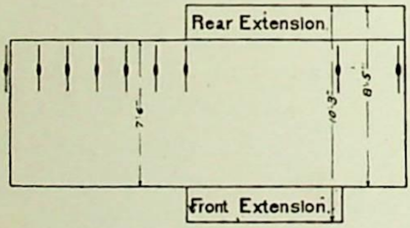
3d. The raising of any saw in the battery, automatically drops the saw last in use.

4th. The saws may be operated from the end of the trimmer, or from a platform above.

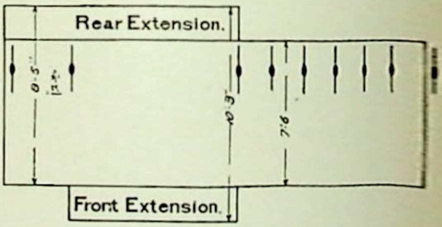
5th. All saws may be lowered below the table, to allow long stuff to pass over. The trimmers without extensions, as shown, may be placed in a space 7½ feet wide, and with extensions 10 feet, 3 inches.

In single circular mills it will be found advantageous to place the trimmers alongside of edgers, so that the man taking lumber from the edgers can adjust the saws and do all the trimming.

In ordering, please state if right or left hand trimmer is wanted, also whether extensions on front, or rear, or both, are desired.



LEFT HAND TRIMMER



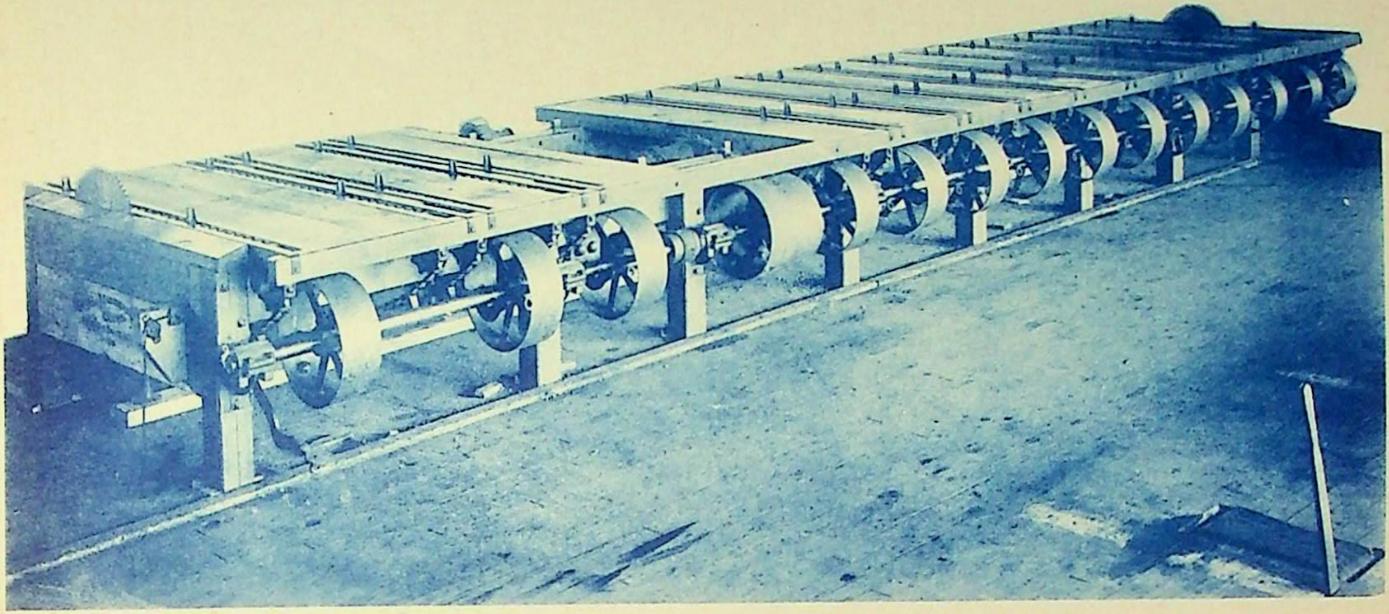
RIGHT HAND TRIMMER

Price List

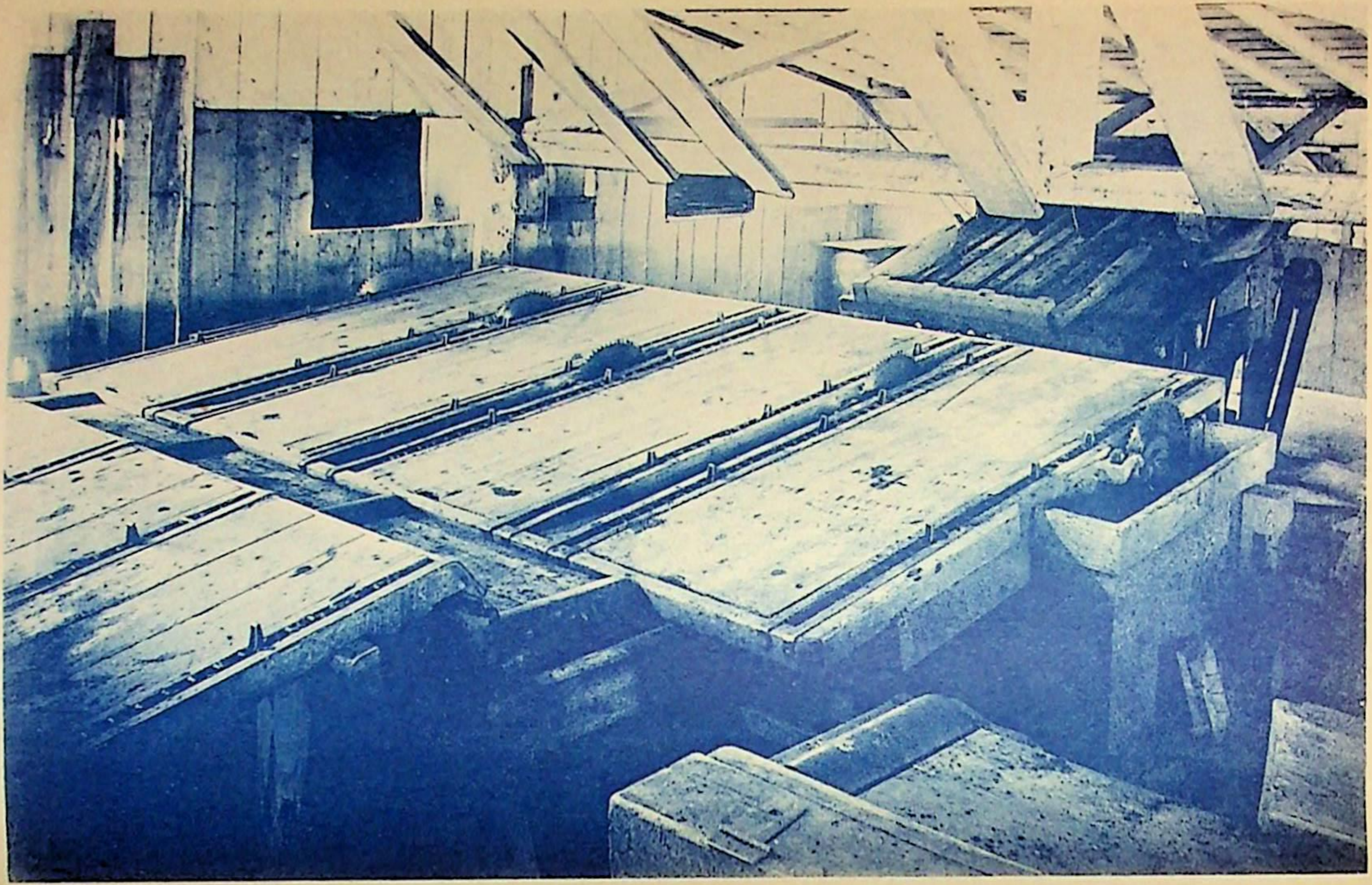
No. 1.	Trimmers,	12, 14 and 16 feet,	$450.00
No. 2.	"	12, 14, 16 and 18 feet,	500.00
No. 3.	"	12, 14, 16, 18 and 20 feet,	550.00
No. 4.	"	10, 12, 14 and 16 feet,	500.00
No. 5.	"	10, 12, 14, 16 and 18 feet,	550.00
No. 6.	"	10, 12, 14, 16, 18 and 20 feet,	600.00

For each additional saw, add $50.

Above prices are exclusive of leather belts or saws.



EMERY AUTOMATIC LUMBER TRIMMER.



"LINK-BELT" GANG SLAB SLASHER.

Slab Slashers

The picture on opposite page represents our five-saw Slasher. We make these, however, with any number of saws required, with wide or narrow table, and with top of table either inclined or level, to suit the varying conditions in different mills. The Feed Gear is so arranged that the carrying chains may be stopped and started at the will of the operator. These chains run in guides, same as in our Trimmers, and are provided with sharp spurs which aid in holding the slabs securely, while the Lug (or H) links carry them by the saws. All our Slashers are fitted with our PATENT SAW COLLARS, which allow the saws to accommodate themselves to the side pressure caused by a wedging slab, thus avoiding breakage of saws. This feature, we think, will commend itself to all millmen. We shall be pleased to furnish plans and estimates for Slashers of any description.

Prices below are for plain Slashers without tilting rails and do not include saws or leather belts.

Price List

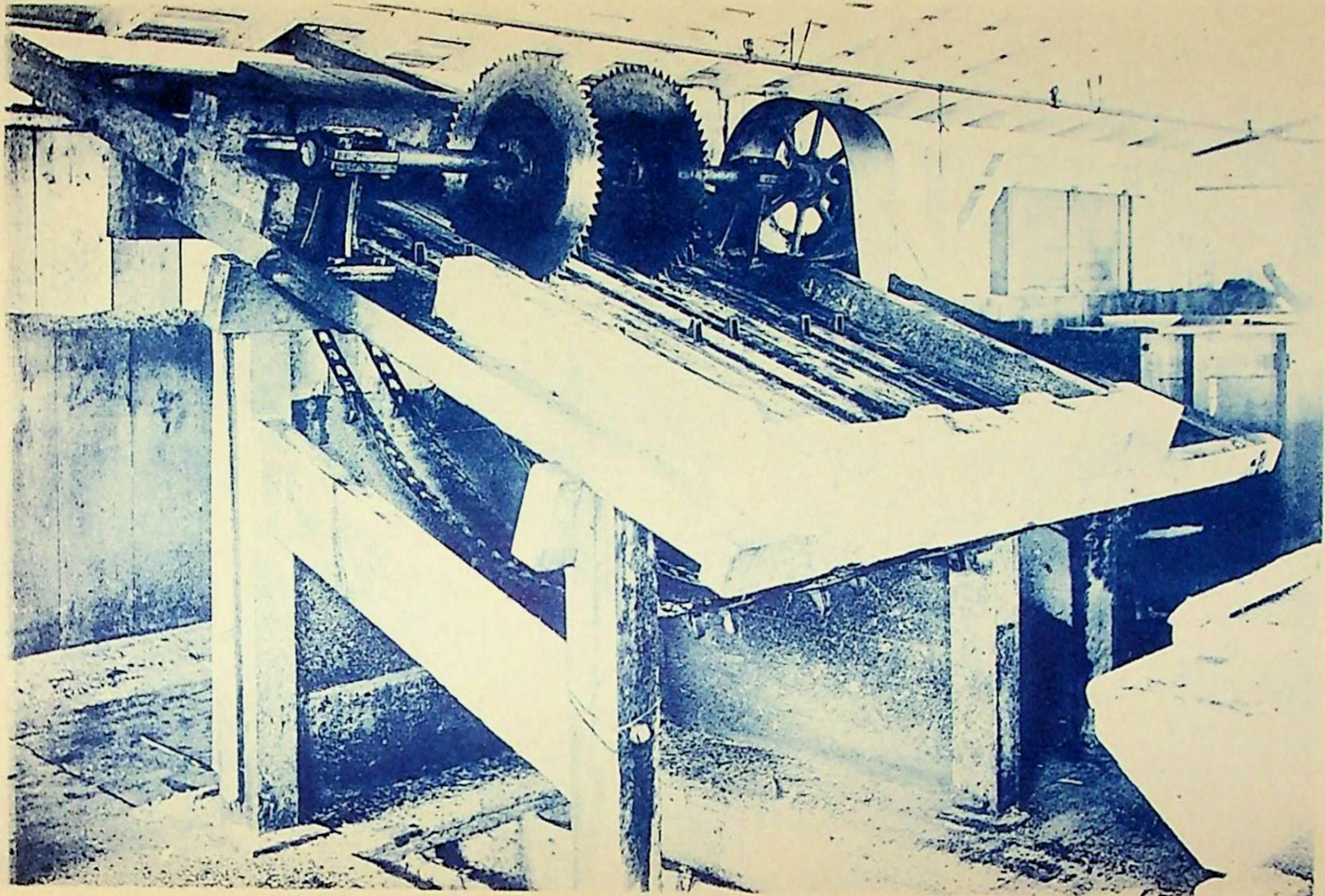
4	Saw,	16	Feet	Long,	$340.00
5	"	16	"	"	360.00
6	"	20	"	"	400.00
7	"	24	"	"	450.00

Prices of Slashers with rolls and tilting rails, quoted upon application.

Short Slashers

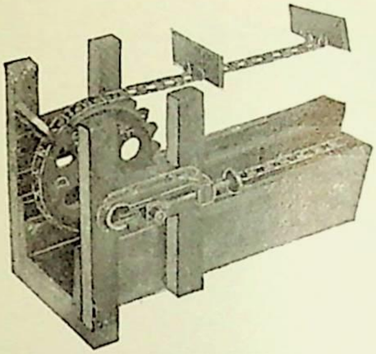
WE ARE PREPARED TO FURNISH SLASHERS OF ANY DESIRED CAPACITY AND FORM, FOR CUTTING STOCK INTO LENGTHS FROM 12 INCHES TO 4 FEET.

THE ACCOMPANYING ILLUSTRATION SHOWS OUR TWO SAW FOUR FOOT SLASHER WHICH IS ESPECIALLY ADAPTED FOR SLASHING FOUR FOOT STUFF INTO SIXTEEN INCH LENGTHS.

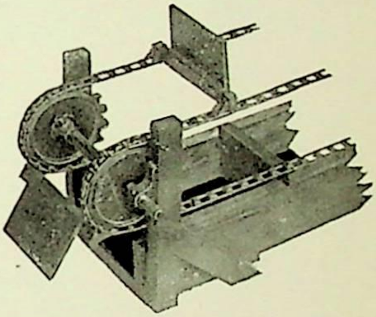


TWO-SAW SLASHER.

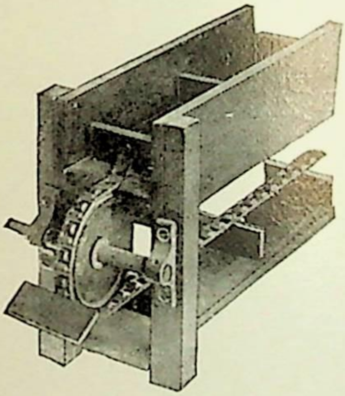
Elements of Conveyors



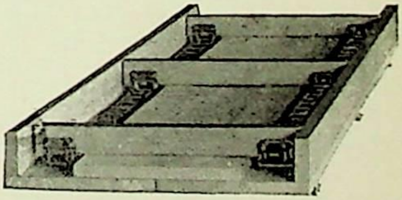
FLIGHT CONVEYOR



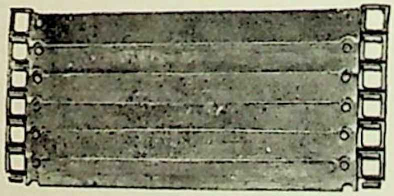
DROP FLIGHT CONVEYOR



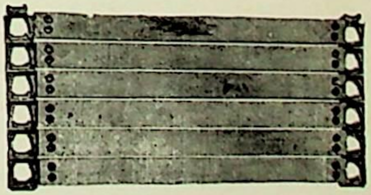
UPPER AND UNDER RUNS CONVEYOR



DOUBLE STRAND FLIGHT CONVEYOR

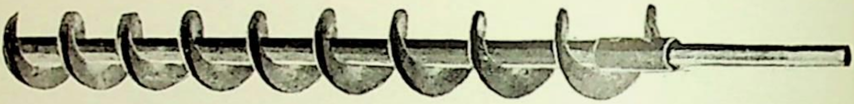


METAL APRON CONVEYOR



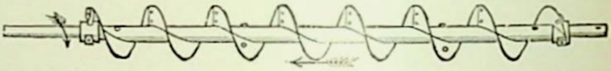
WOODEN APRON CONVEYOR

Caldwell Conveyor

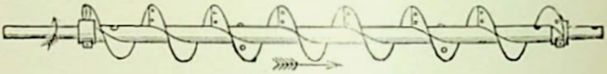


We supply, upon short notice, this Conveyor mounted upon hollow shafts, as shown above, or with extra heavy flights mounted upon a solid shaft and with fittings to match. Order by the letter and name indicated below.

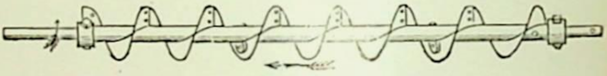
A.—Right hand...........



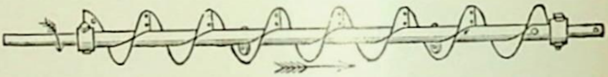
B.—Right hand...........



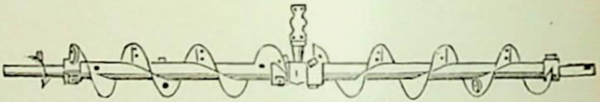
C.—Left hand.........



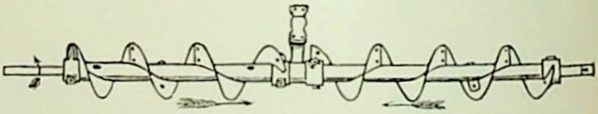
D.—Left hand............



E.—Right and Left hand...



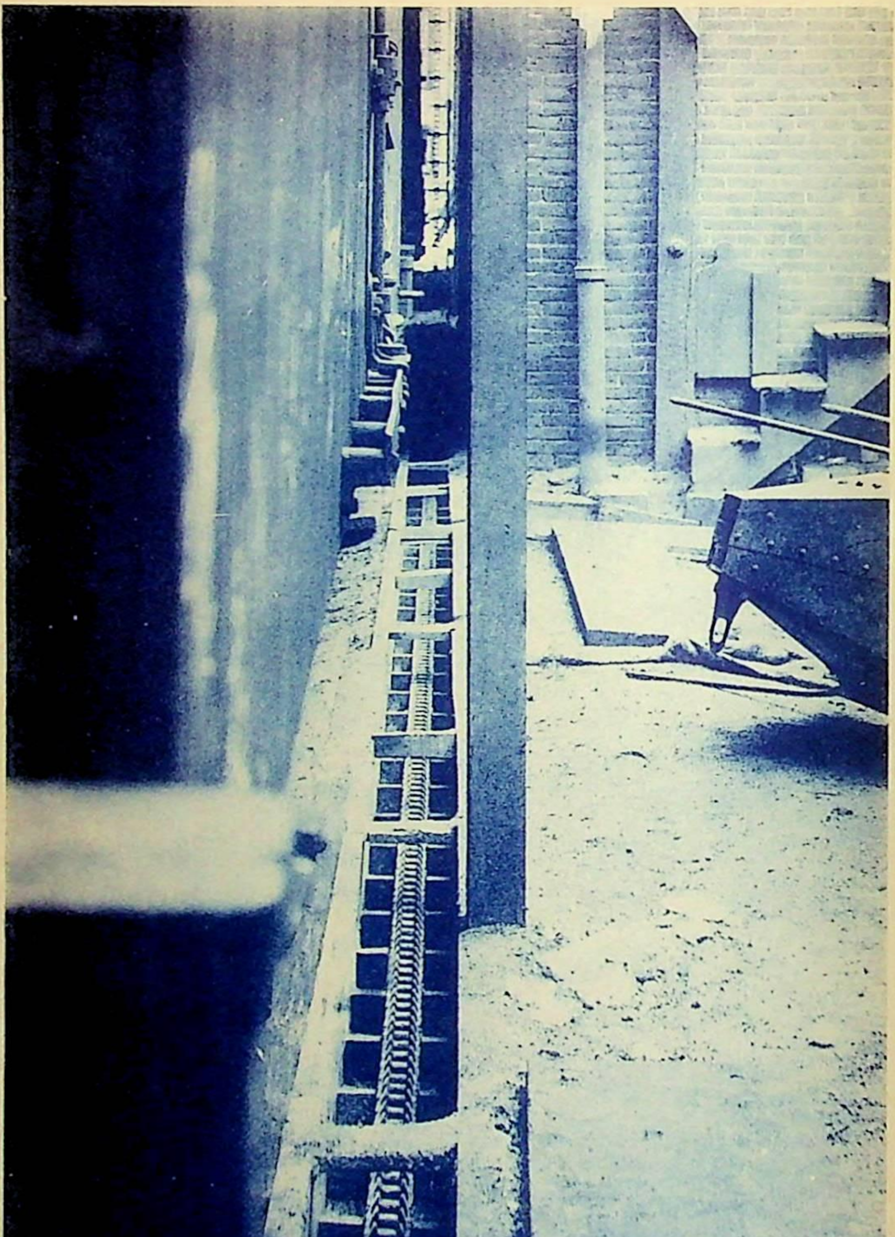
F.—Right and Left hand..



Price List of Caidwell Conveyor as Usually Made and Mounted on Hollow Shafts

Diam. in Inches	Standard Length.	Inside Diameter of Hollow Shaft.	Maximum Speed.	Capacity per Hour.	Price, Per Foot, Steel Flights.	Price, Per Foot, Galvanized Iron.
4	8 feet.	1 inch.	100	100	$1.00	$1.28
6	10 "	1½ "	140	300	1.67	2.03
9	10 "	1½ "	150	1,000	2.00	2.68
12	12 "	2 "	160	2,000	2.80	3.48
16	12 "	2 "	160	3,000	3.75	4.83
16	12 "	3 "	160	4,000	5.08	6.38
18	12 "	3 "	160	5,000	6.15	7.79

These prices include Hangers, Curved Sheet-iron Lining, Couplings and Bolts, complete. If Hangers or Linings are not desired, deduct for either, per foot of Conveyor: 4-inch, 2½c.; 6-inch, 3½c.; 9-inch, 5c.; 12-inch, 10c.; 16-inch, 15c.; 18-inch, 20c.



FLIGHT CONVEYOR,

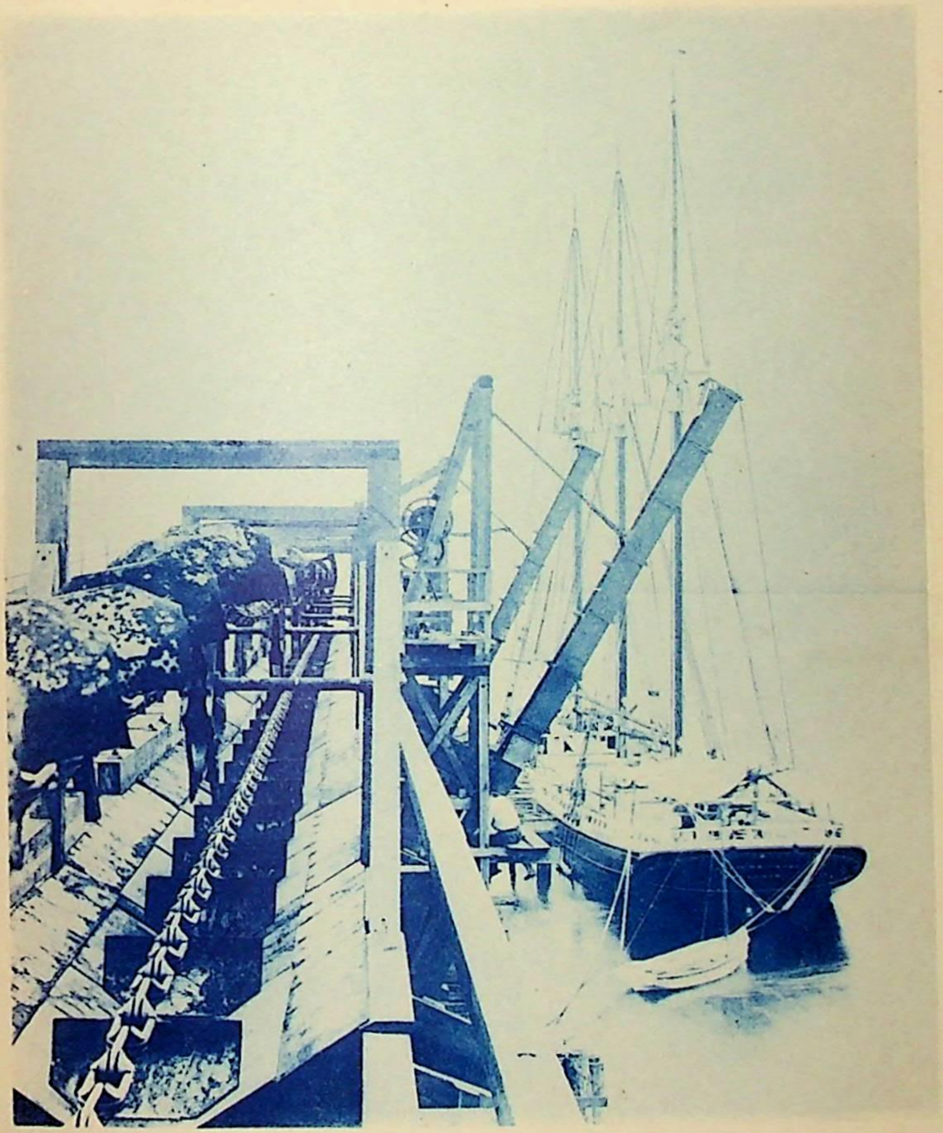
USING EWART LINK-BELTING.

Flight Conveyors

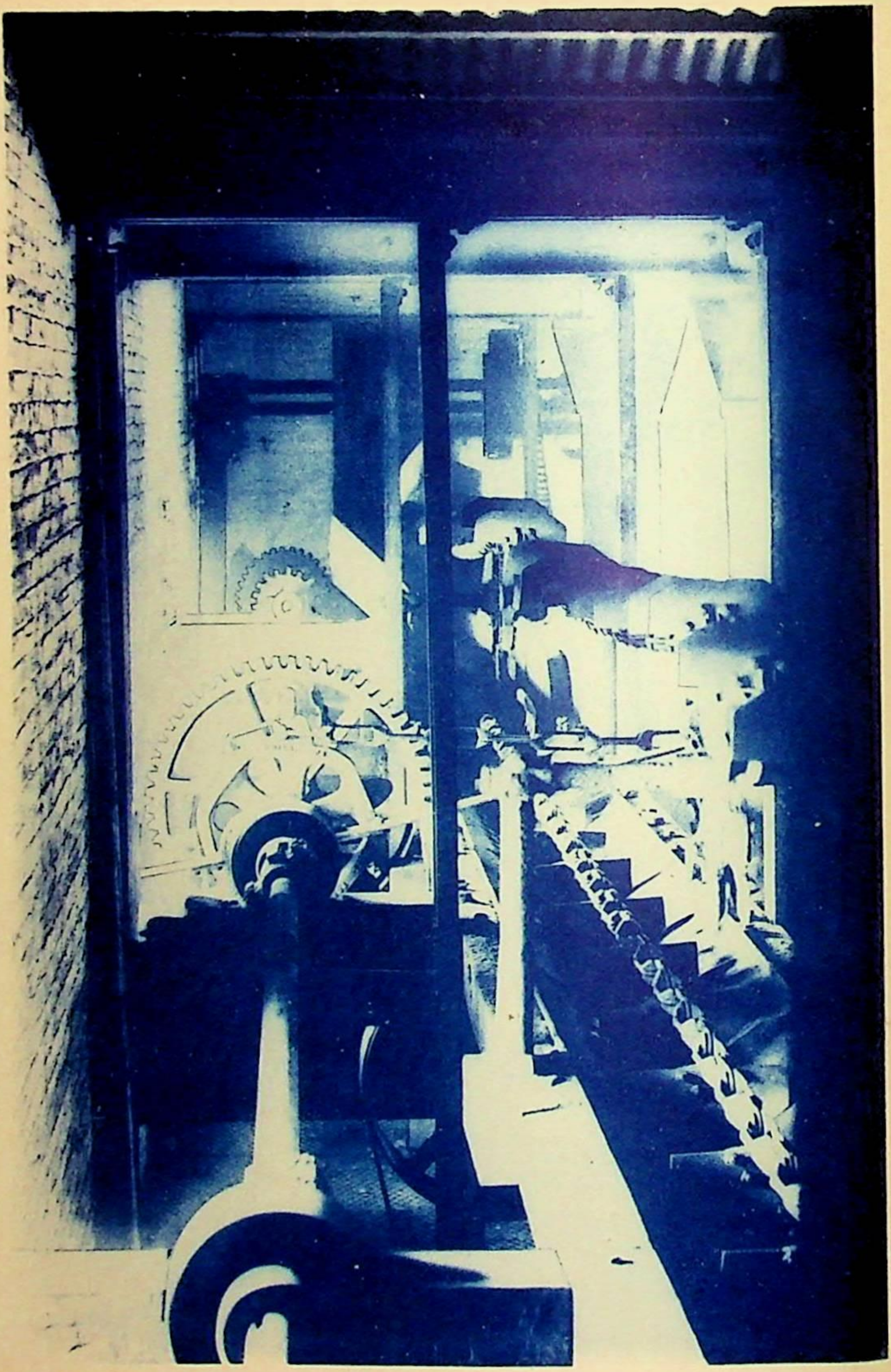
WE DESIGN VARIOUS FORMS OF FLIGHT CONVEYORS, FOR HANDLING A WIDE RANGE OF MATERIALS, USING EWART DETACHABLE LINK-BELTING, TO WHICH WE ATTACH WOOD OR IRON FLIGHTS, IN THE MANNER BEST ADAPTED TO HANDLE THE MATERIAL. THE APPLICATION OF FLIGHT CONVEYORS EXTENDS OVER A LARGE FIELD, AND IS THE MOST GENERALLY USEFUL FORM OF CONVEYOR CONSTRUCTED. THEY ARE ADAPTED FOR HANDLING VARIOUS KINDS OF MATERIAL, FROM THE LIGHTEST TO THE MOST BULKY AND ARE IN USE CONVEYING LAMP BLACK, GRAIN, CEMENT, SAND, TAN BARK, GOAT SKINS, ORE, PHOSPHATE, FAT, COAL, ETC. SOME OF THE MANY FORMS OF FLIGHT CONVEYORS ARE ILLUSTRATED ON PAGES 93, 99, 102.

Dodge Chain Conveyors

WE ARE EXCLUSIVE MANUFACTURERS OF THIS TYPE OF CONVEYOR, WHICH FAR SURPASSES, IN STRENGTH, CAPACITY AND DURABILITY, ANY DEVICES THAT HAVE BEEN HERETOFORE USED. THE CONSTRUCTION OF THE CHAIN IS SUCH (PAGE 48) THAT IT MAY BE LED IN ANY DIRECTION, AND WHEN USED IN CONNECTION WITH OUR STYLE "C" FLIGHTS AND STANDARD STEEL CONVEYOR TROUGH, FORMS THE BEST COMBINATION FOR LONG AND HEAVILY WORKED CONVEYORS FOR COARSE AND GRITTY MATERIALS. FOR SPECIAL CASES THESE CONVEYORS ARE DESIGNED WITH GLASS OR HARD-WOOD TROUGH-BOTTOMS, ACCORDING TO THE NATURE OF THE MATERIAL TO BE HANDLED. THE ILLUSTRATION SHOWS A CONVEYOR HANDLING PHOSPHATE ROCK; WITH SLIGHT MODIFICATIONS IT IS ADAPTED TO HANDLE COAL, ORE, ASHES, COKE, HIDES, ETC.



DODGE CONVEYOR.



BOILER HOUSE CONVEYOR, USING DODGE CHAIN.

Boiler House Conveyors

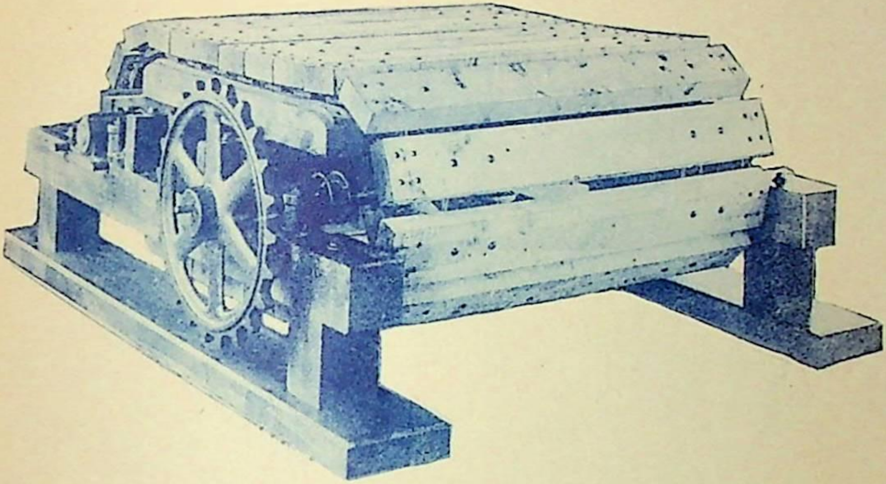
IN MOST FIRE ROOMS THE COAL GOING TO, AND THE ASHES TAKEN FROM, THE BOILERS, CAN BE HANDLED FAR CHEAPER AND WITH LESS BREAKAGE TO THE COAL, BY MEANS OF OUR CONTINUOUS MACHINERY, THAN BY CARS OR BARROWS. THE CONVEYORS MAY BE SO CONSTRUCTED AS TO DELIVER THE COAL IN FRONT OF EACH SEPARATE FIRE DOOR, OR INTO THE HOPPER OF AN AUTOMATIC STOKER. WE HAVE EQUIPPED MANY BOILER ROOMS WITH SUCH MACHINERY, WHICH HAS GIVEN ENTIRE SATISFACTION TO OUR CUSTOMERS, BY DECIDEDLY REDUCING OPERATING EXPENSES. WE HAVE FURNISHED THIS CLASS OF MACHINERY FOR THE FRANKLIN SUGAR REFINERY, SPRECKLES' SUGAR REFINERY, PENNSYLVANIA R. R. CO., AT ALTOONA, PABST BREWING CO., AT MILWAUKEE, AND MANY OTHERS.

Apron Conveyors

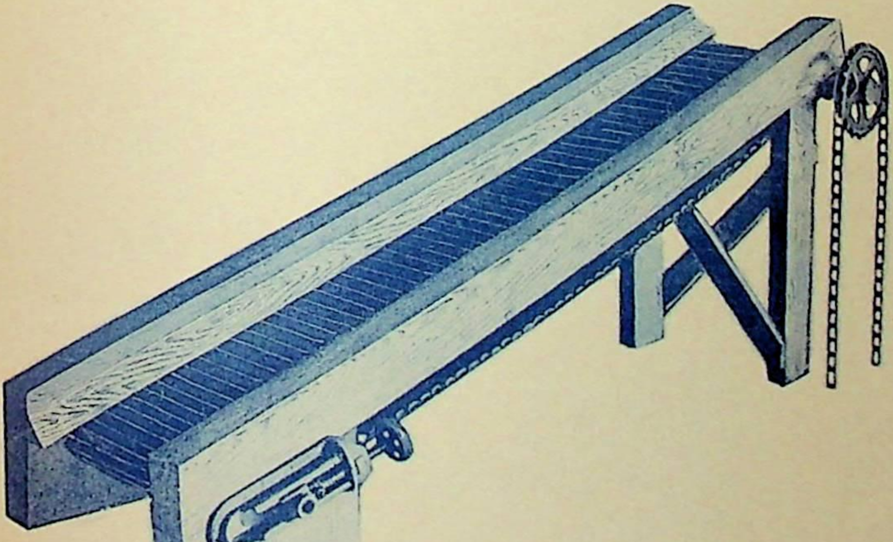
APRON CONVEYORS ARE COMPOSED OF TWO PARALLEL CHAINS JOINED BY A SERIES OF OVERLAPPING OR MEETING STRIPS OF WOOD OR METAL ATTACHED TO CONVEYOR CHAIN. THEY ARE THE MOST CONVENIENT FORM OF CONVEYOR TO LOAD THAT HAS EVER BEEN PRODUCED, AND ARE CAPABLE OF CONVEYING HORIZONTALLY OR AT AN INCLINE THE LIGHTEST MATERIALS, AS SEED COTTON, AS WELL AS THE HEAVIEST PACKAGES HANDLED BY TRANSPORTATION COMPANIES. THOSE MADE OF WOOD ARE MOSTLY USED FOR HANDLING PACKAGES OR LONG FIBROUS MATERIAL, AS MISCELLANEOUS WAREHOUSE FREIGHT, SUGAR CANE, BAGASSE, ETC. THE METAL APRON CONVEYORS HAVE THEIR SLATS OVERLAPPING AND ARE PRINCIPALLY USED FOR COFFEE, SUGAR, CLAY AND SIMILAR MATERIAL.

ALL OF THESE CONVEYORS ARE DESIGNED FOR EACH SEPARATE SET OF CONDITIONS UNDER WHICH THEY WORK AND IN ACCORDANCE WITH WHAT OUR EXPERIENCE HAS TAUGHT US TO BE THE BEST ADAPTED TO THE PURPOSE.

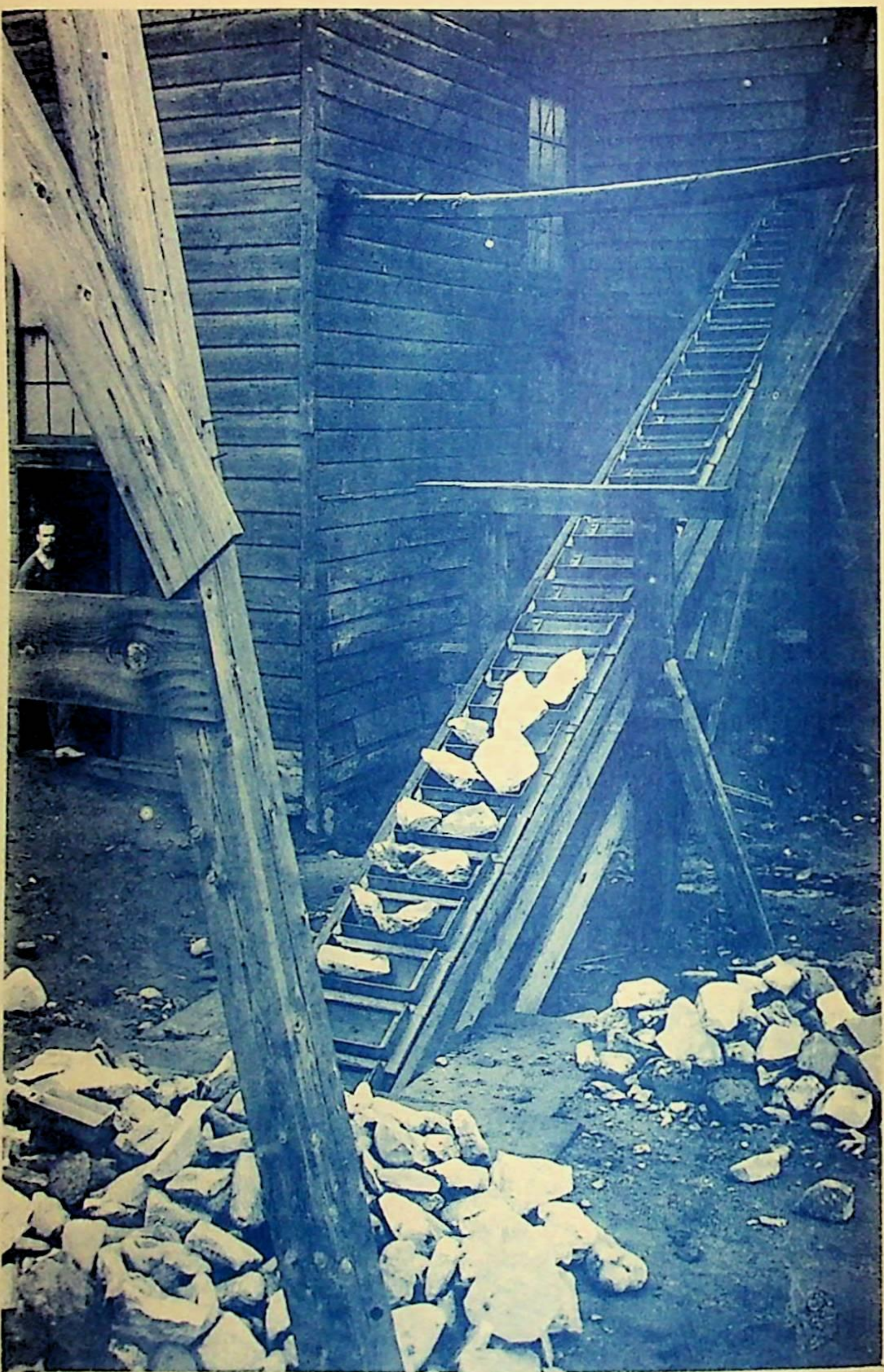
FOR HANDLING ROCKS, ORES AND SIMILAR SUBSTANCES, WE BUILD APRON CONVEYORS SIMILAR TO THE ONE SHOWN ON PAGE 105, WHICH IS SO CONSTRUCTED THAT THE MATERIAL MAY BE CARRIED UP A STEEP INCLINE OR ON THE HORIZONTAL, AND WILL WITHSTAND A GREAT AMOUNT OF POUNDING.



WOODEN APRON CONVEYOR.



METAL APRON CONVEYOR.



INCLINED ROCK CONVEYOR.

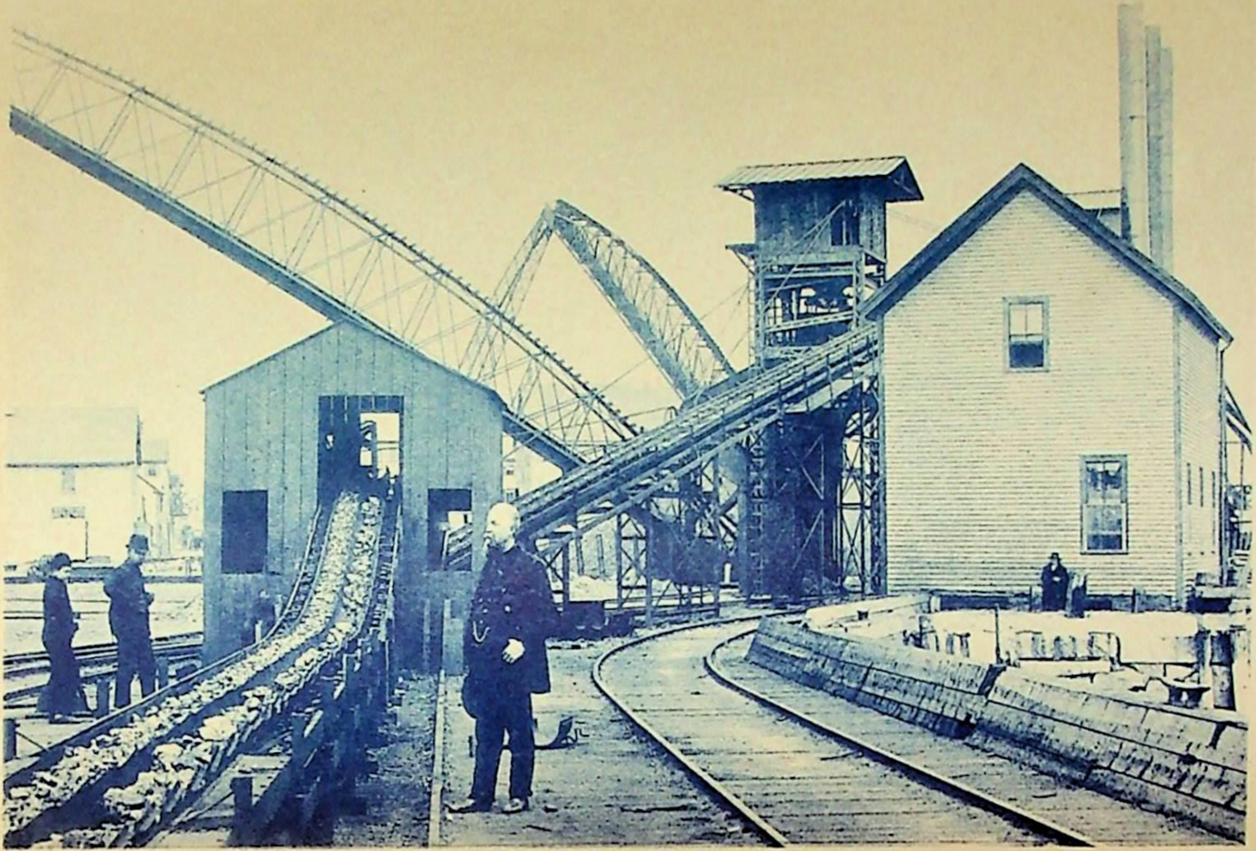
Inclined Rock Conveyors

APRON CONVEYORS OF THE TYPE HERE ILLUSTRATED HAVE BEEN IN USE FOR A NUMBER OF YEARS HANDLING ROCK, ORE AND MATERIAL OF LIKE ROUGH NATURE. THEIR CONSTRUCTION IS SUCH THAT THE MATERIAL CAN BE READILY LOADED UPON, AND IS AUTOMATICALLY DISCHARGED FROM, THE CONVEYOR.

THE CHAIN IS FULLY PROTECTED FROM COMING IN CONTACT WITH THE MATERIAL HANDLED, AND THE WHOLE CONSTRUCTION IS SUCH THAT THE INSTALLATION IS VERY DURABLE UNDER ITS SEVERE DUTY, AND IS NOT AFFECTED BY THE HEAVY POUNDING WHICH SUCH CONVEYORS RECEIVE IN SERVICE.

Trough Conveyors

TROUGH CONVEYORS ARE A SERIES OF OVERLAPPING SHORT SECTIONS OF MOVING TROUGH, EITHER WITH FLAT OR HALF-ROUND BOTTOMS, WHICH DISCHARGE THEIR CONTENTS OVER THE HEAD-WHEEL. THEY ARE CONSTRUCTED EITHER AS SINGLE OR DOUBLE CONVEYORS, DEPENDING UPON THE NATURE OR QUANTITY OF MATERIAL TO BE HANDLED, AND ARE CAPABLE OF CONVEYING UP INCLINES AS WELL AS HORIZONTALLY. THESE CONVEYORS ARE ADAPTED TO HANDLE COARSE OR FINE, LOOSE MATERIAL, AND, IN THE CASE OF THE DOUBLE PAN, WILL HANDLE TWO DIFFERENT SIZES OR KINDS OF MATERIAL SIMULTANEOUSLY. THEY WILL NOT BREAK THE MOST FRAGILE SUBSTANCES. THE PICTURE SHOWS A DOUBLE PAN CONVEYOR IN OPERATION AT SALEM, MASS., HANDLING TWO SIZES OF COAL.



ENDLESS TROUGH CONVEYOR,

LEHIGH & WILKES-BARRE COAL CO., SALEM, MASS.

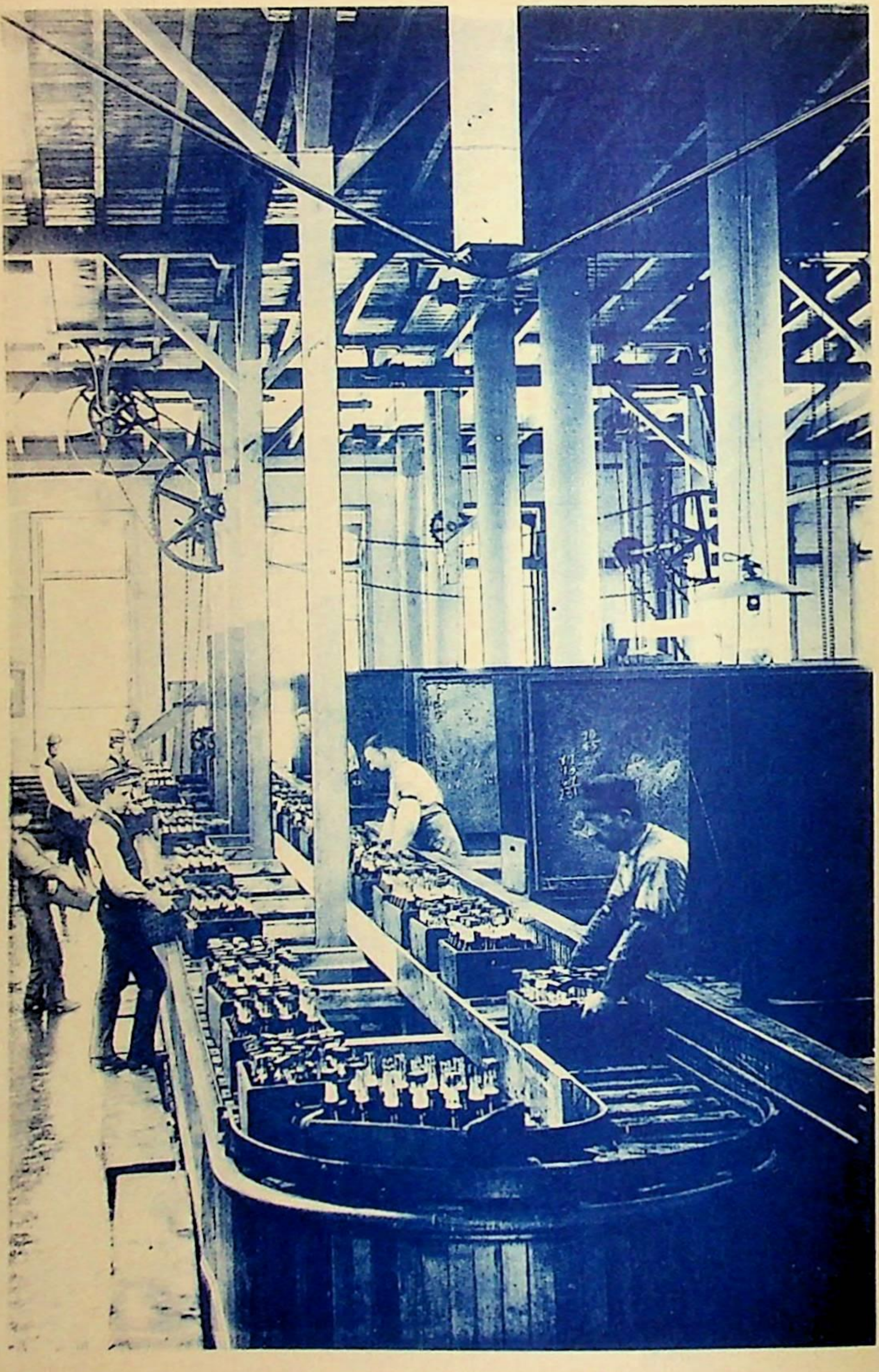


TABLE CONVEYOR IN PABST'S BREWERY,

MILWAUKEE, WIS.

Table Conveyors

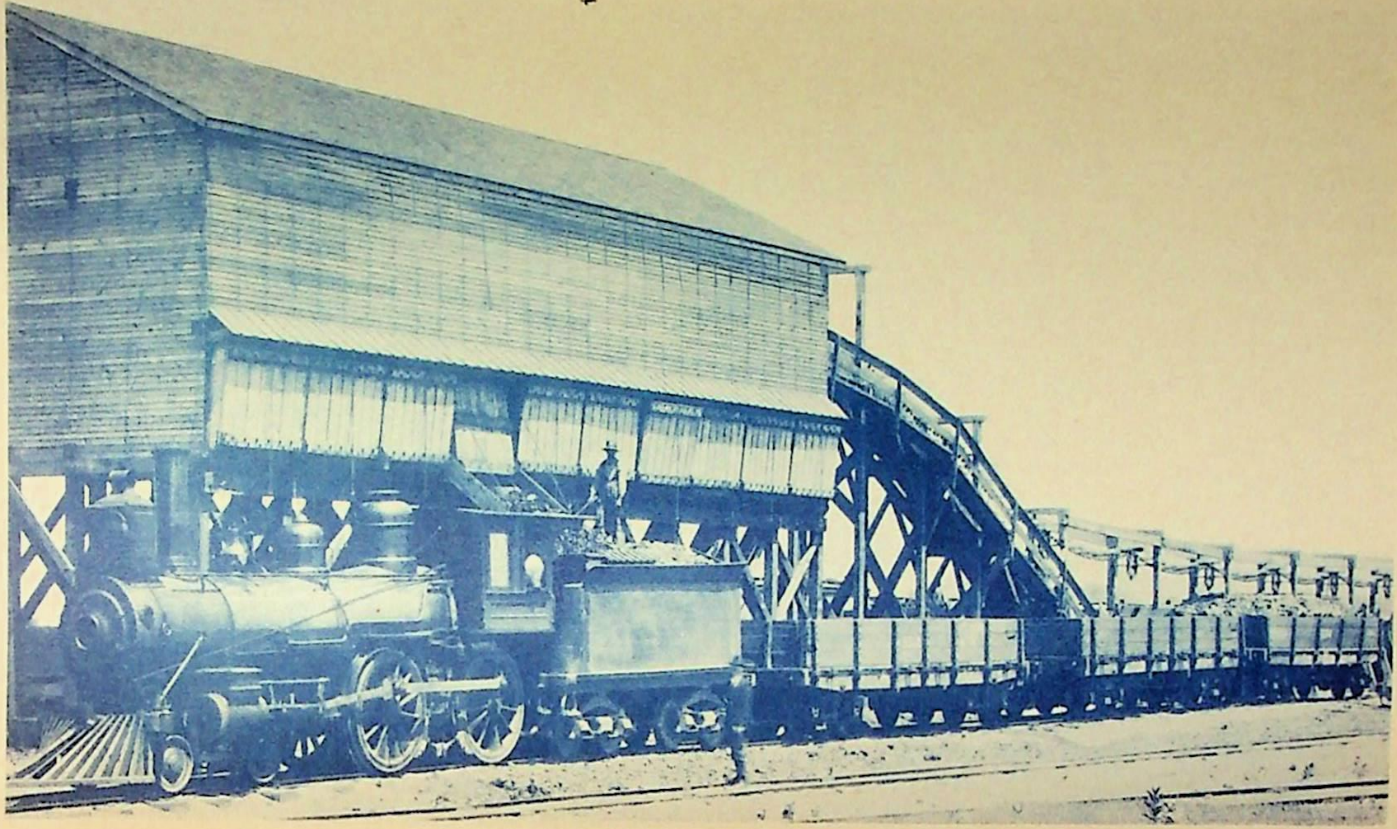
TABLE CONVEYORS CONSIST OF AN ENDLESS SERIES OF MOVING PLATFORMS ATTACHED TO A SINGLE CHAIN AND MOVING AROUND A HORIZONTAL WHEEL. AS THERE ARE NO UPPER AND UNDER RUNS WITH THIS FORM OF CONVEYOR IT IS OBVIOUS THAT BOTH SIDES MAY BE USED AND THE CONVEYOR GIVEN ANY ANGLE IN A HORIZONTAL PLANE. THIS CLASS OF CONVEYORS IS MADE OF SEVERAL DIFFERENT FORMS AND IS ESPECIALLY DESIGNED TO CARRY BOXES, BOTTLES, MOULDS, ETC., AND ALLOWS SUBDIVIDED WORK TO BE CARRIED ON CONTINUOUSLY BY ALLOWING OPERATIVES TO SORT, INSPECT, PACK, AND LABEL BOXES OR BOTTLES.

THE FLASK CONVEYOR IS A FORM OF TABLE CONVEYOR FOR HANDLING MOULDS IN FOUNDRIES WHERE RAPID WORK IS DESIRED, AND IS USUALLY CONSTRUCTED ON DODGE CHAIN AND DESIGNED WITH SPECIAL REFERENCE TO EASE OF MOVEMENT.

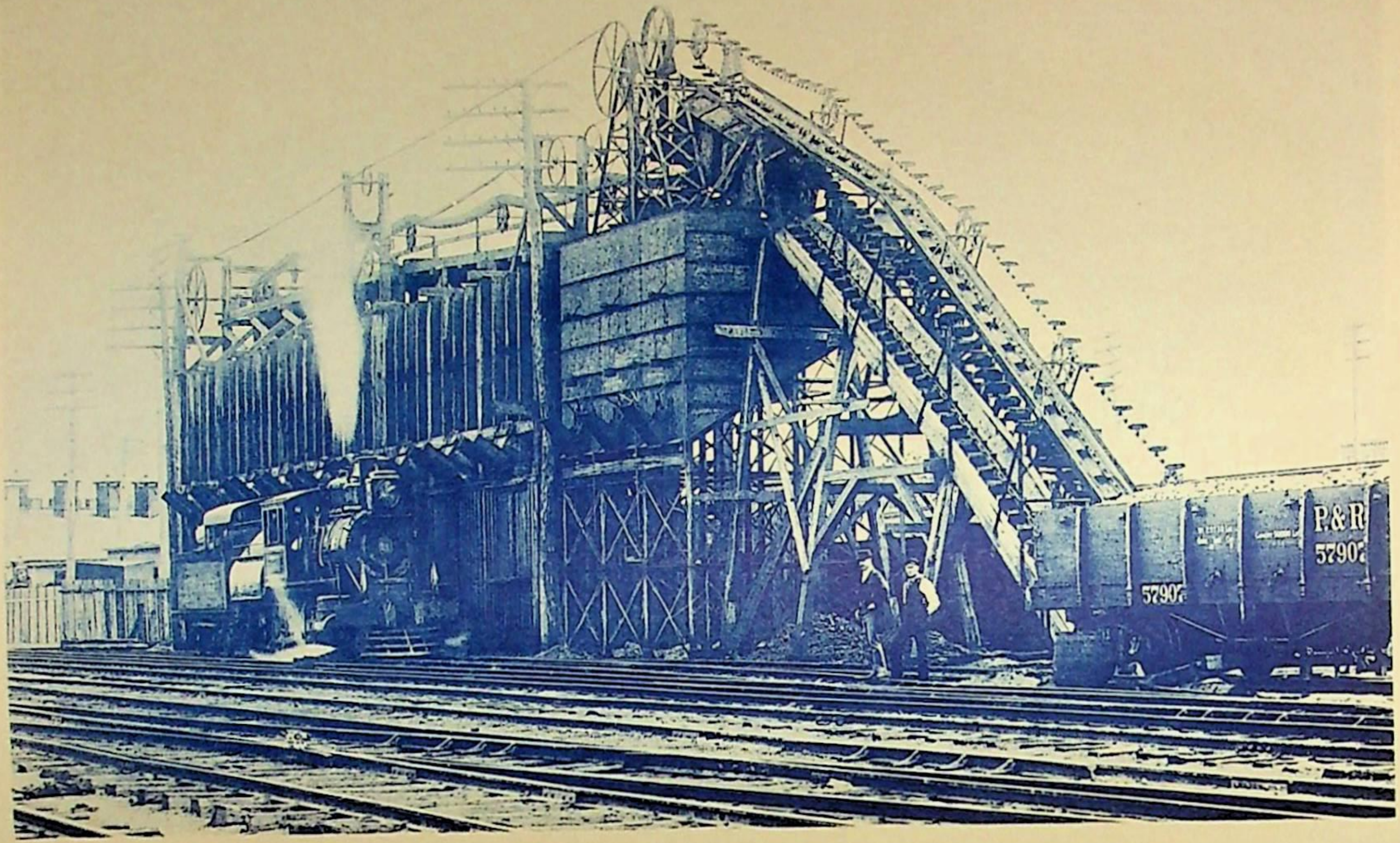
IT CARRIES THE MOULDS FROM THE MOULDING FLOOR TO THE CUPOLA OR FURNACE AND THENCE TO CLEANING ROOM. WHILE A SERIES OF FLASKS ARE IN FRONT OF THE CUPOLA THE CONVEYOR IS STOPPED AND THE MOULDS POURED WITHOUT REMOVING THEM FROM THE CONVEYOR.

Bituminous Locomotive Coaling Stations

WE HAVE CONSTRUCTED A NUMBER OF LOCOMOTIVE COALING PLANTS OF THE SAME TYPE AS SHOWN OPPOSITE. THIS SYSTEM OF COALING IS VERY DESIRABLE FOR RAILROAD COMPANIES ON ACCOUNT OF ITS ECONOMY OF LABOR AND SPACE, AND THE FACILITY AND CAPACITY AS COMPARED WITH STATIONS HAVING OVERHEAD POCKETS WITH LONG TRACK INCLINES. THE PICTURE OPPOSITE IS OF THE COALING STATION OF THE CHICAGO & WEST MICHIGAN RAILWAY, AT NEW BUFFALO, MICH., WHERE BITUMINOUS COAL IS HANDLED AT THE RATE OF TWO TONS PER MINUTE. STATIONS CONSTRUCTED FOR THE PHILADELPHIA & READING R. R. AND THE DELAWARE AND HUDSON CANAL CO. HANDLE ANTHRACITE COAL. (SEE PAGE 121.)



LOCOMOTIVE COALING STATION, HANDLING BITUMINOUS COAL,
CHICAGO & WEST MICHIGAN RAILWAY,
NEW BUFFALO, MICH.



LOCOMOTIVE COALING STATION, HANDLING ANTHRACITE COAL,
PHILADELPHIA & READING R.R. CO.,
PHILADELPHIA, PA.

Anthracite Locomotive Coaling Stations

THE COALING STATION HERE SHOWN HAS BEEN RECENTLY ERECTED FOR THE PHILADELPHIA & READING R. R. CO., AT PHILADELPHIA, FOR THE PURPOSE OF COALING THEIR LOCOMOTIVES AND OF HANDLING AND LOADING INTO CARS THE CLINKERS AND ASHES COMING FROM THEM.

THE PLANT CONSISTS OF INCLINED AND HORIZONTAL COAL CONVEYORS, WHICH TAKE ANY SIZED COAL, FROM "DIRT" TO "STEAMBOAT," FROM UNDER THE CARS AND FILL, AT THE RATE OF 120 TONS PER HOUR, A SERIES OF OVERHEAD POCKETS FROM WHICH THE ENGINES ARE COALED.

ABOVE THE COAL CONVEYOR IS AN ASH CONVEYOR, WHICH TAKES THE ASHES AND CLINKERS FROM BENEATH THE LOCOMOTIVES AND CONVEYS THEM UP THE INCLINE, DISCHARGING THEM INTO AN IRON POCKET FROM WHICH THEY ARE LOADED UPON CARS. (SEE PAGE 116.)

Berger Endless Elevated Railway

THE BERGER ENDLESS ELEVATED RAILWAY IS A SUBSTANTIAL FORM OF BUCKET RAILWAY, WHICH IS PERMANENT IN ITS CHARACTER AND ECONOMIC IN OPERATION.

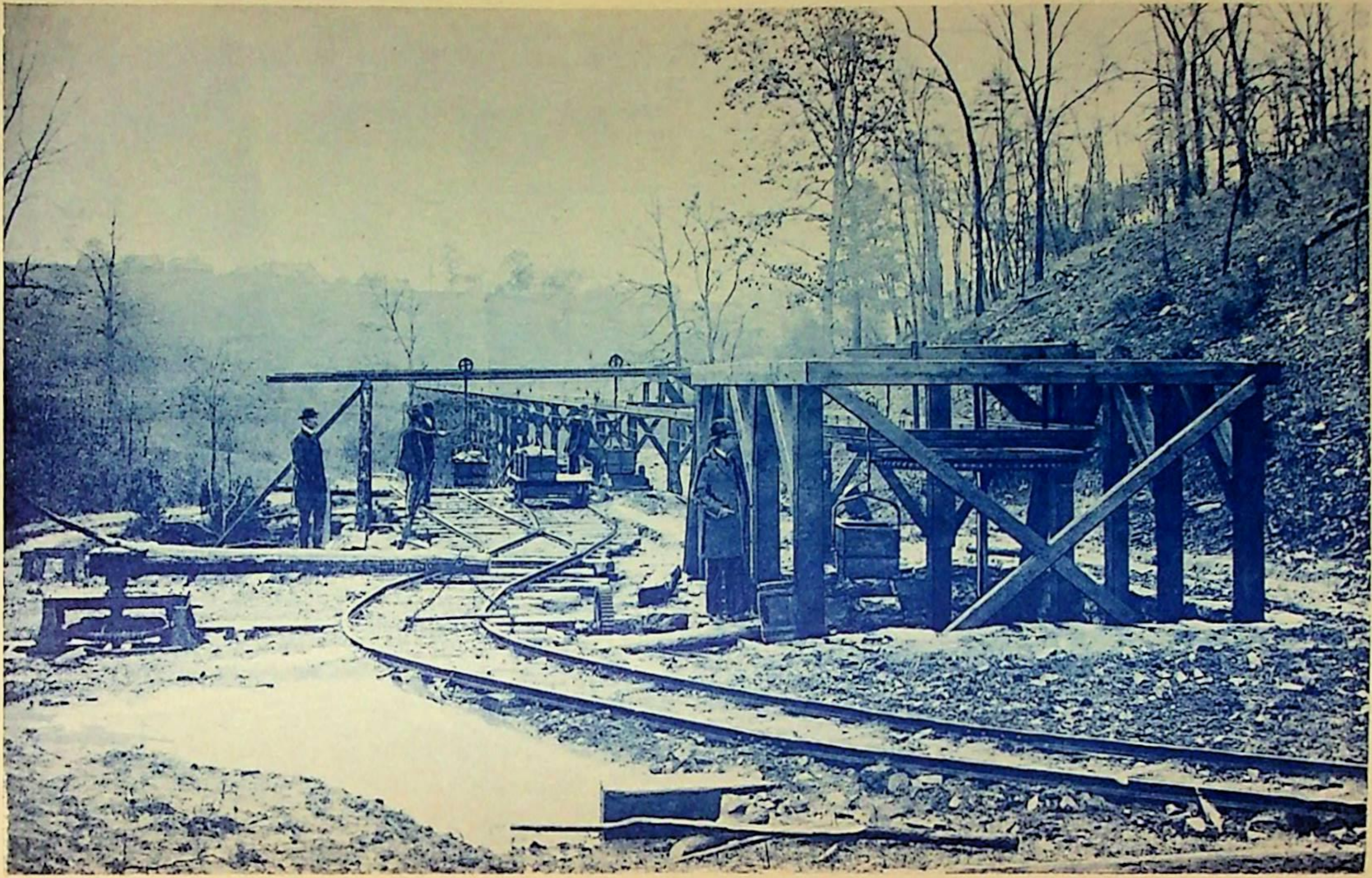
IT MAY BE MADE ENTIRELY AUTOMATIC IN ITS WORKING, AS THE MATERIAL CAN BE LOADED FROM HOPPERS INTO LOADING BUCKETS, WHICH, IN TURN, WILL LOAD THE MATERIAL INTO THE LINE BUCKETS WITHOUT STOPPING ANY OF THE MACHINERY.

THE LINE BUCKETS CAN BE ARRANGED SO AS TO DUMP AUTOMATICALLY AT ANY POINT WHATSOEVER, AND AFTER DISCHARGING THEY RIGHT AND LOCK THEMSELVES AND ARE READY TO BE REFILLED.

ROADS OF THIS DESCRIPTION HAVE BEEN BUILT FROM A FEW HUNDRED FEET TO FIVE MILES IN LENGTH, AND ASCENDING GRADES OF ONE TO TWO.

THE BUCKET TROLLEY WHEELS TREAD UPON AN I RAIL WHICH MAY BE REVERSED WHEN WORN.

THIS IS THE MOST DURABLE AUTOMATIC LONG DISTANCE CONVEYOR NOW MADE, AND WILL HANDLE ANY KIND OF MATERIAL. FOR TRANSFERRING MATERIALS AROUND WORKS, THE OVERHEAD FEATURE, LEAVING THE GROUND FREE OF OBJECTIONAL SURFACE RAILWAY TRACKS, IS OF OBVIOUS ADVANTAGE.



BERGER ENDLESS ELEVATED RAILWAY.

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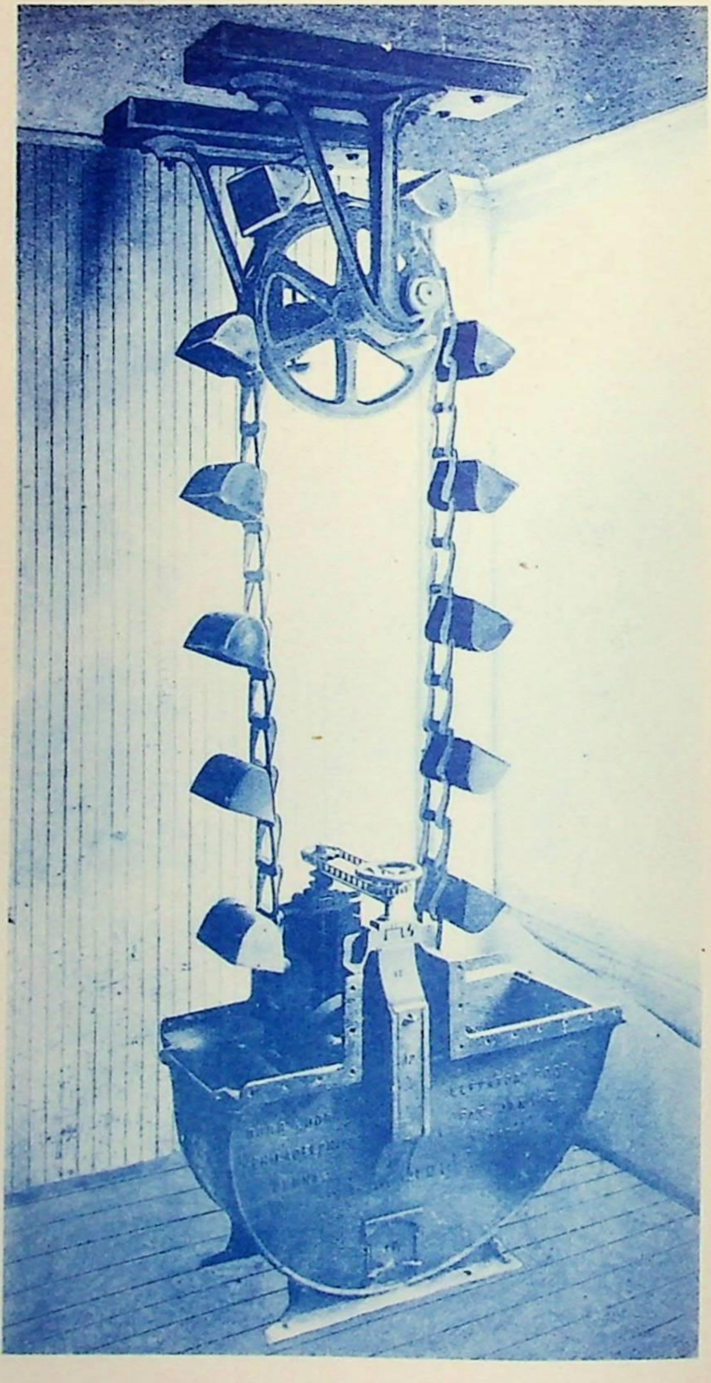


BUCKET ELEVATOR.

Bucket Elevators

IN THE CONSTRUCTION OF BUCKET ELEVATORS, LINK-BELTING HAS MANY ADVANTAGES OVER RUBBER, LEATHER OR CANVAS, ON ACCOUNT OF ITS LIGHTNESS, GREATER DURABILITY, AND NOT BEING AFFECTED BY CHANGES IN TEMPERATURE OR MOISTURE.

IN ELEVATORS OF THIS TYPE THE BUCKETS ARE SECURELY BOLTED OR RIVETED TO ATTACHMENT LINKS DESIGNED ESPECIALLY FOR THE PURPOSE, WHICH INCREASE THEIR RIGIDITY.

WE CONSTRUCT ELEVATORS WHICH SUCCESSFULLY HANDLE SAND, LOOSE GRAIN, EAR CORN, CANDY, SUGAR, PHOSPHATE, TAN BARK, WATER, CHEMICALS, WOOD PULP, COAL, ASHES, ETC.

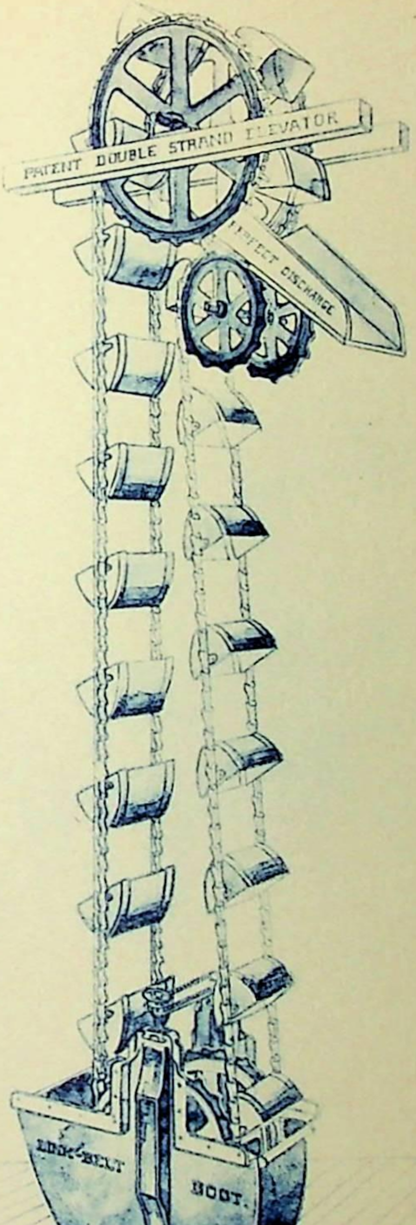
ALL ELEVATORS BUILT BY US ARE PARTICULARLY DESIGNED FOR THEIR PURPOSE AND LOCATION, AND WILL BE CONSTRUCTED WITH SINGLE OR DOUBLE STRANDS OF CHAIN WITH THE BUCKETS CENTRALLY HUNG OR FASTENED TO THE BACK AS IS DESIRED, OR OUR EXPERIENCE DICTATES.

BY MEANS OF OUR PATENT PERFECT, AND GRAVITY DISCHARGE ELEVATORS, (SEE PAGES 129, 132) WE ARE ENABLED TO HANDLE CERTAIN CLASSES OF MATERIALS IN A MUCH MORE SATISFACTORY MANNER THAN IS POSSIBLE BY THE ORDINARY METHODS AND INSURE THEIR COMPLETE DISCHARGE.

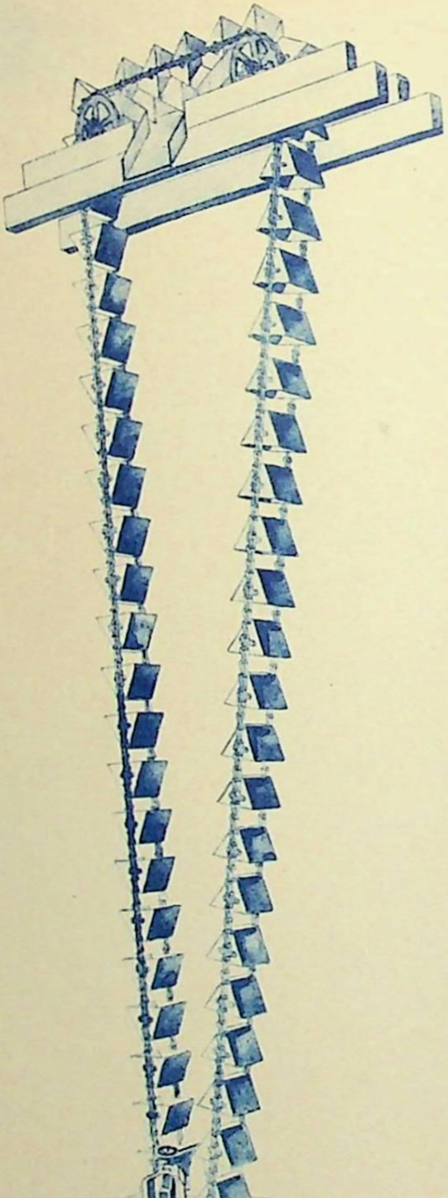
The Perfect Discharge Elevators

(PATENTED)

AS SHOWN ON OPPOSITE PAGE, COMPEL THE BUCKETS TO DROP THEIR LOAD, EVEN AT A SLOW SPEED, AND, AS IN THE CASE OF THE GRAVITY DISCHARGE ELEVATOR, ALLOW THE BUCKETS TO COMPLETELY FILL AND DISCHARGE THEIR CONTENTS WHEN HANDLING ANY MATERIAL. AS THESE ELEVATORS TAKE UP BUT LITTLE FLOOR ROOM, THEY WILL BE FOUND VERY DESIRABLE WHEN BUT LIMITED SPACE IS AVAILABLE.



PERFECT DISCHARGE ELEVATOR.



GRAVITY DISCHARGE ELEVATOR.

The Gravity Discharge Elevator

GRAVITY DISCHARGE ELEVATORS ARE DESIGNED TO HANDLE LARGE QUANTITIES OF MATERIAL AT A SLOW RATE OF SPEED AND AVOID BREAKAGE AND ALLOW THE BUCKETS TO PROPERLY FILL WHEN HANDLING COARSE MATERIALS. THE CONSTRUCTION IS SUCH THAT AFTER THE BUCKETS TURN THE FIRST HEAD-WHEEL, THEY MOVE IN A TROUGH, ACTING AS FLIGHTS IN A CONVEYOR, AND DISCHARGING THEIR CONTENTS QUIETLY AND WITHOUT VIOLENCE. THEY ARE PARTICULARLY USEFUL IN HANDLING COAL, AND MATERIALS OF LIKE NATURE.

Tray Elevators

THE ELEVATORS SHOWN ARE DESIGNED TO HANDLE BOOKS, YARN, CHINA, CANDY, PAPER, TILE, BRICKS, BARRELS, BOXES AND GENERAL MERCHANDISE. IN THE OPERATION OF THE LIGHTER FORMS, THE MATERIAL IS USUALLY PLACED UPON AND TAKEN OFF BY THE WORKMEN WHILE THE TRAYS ARE IN MOTION. IN THE CASE OF THE SPECIAL AND HEAVIER FORMS, THE MATERIAL IS AUTOMATICALLY LOADED UPON AND DISCHARGED FROM THE ELEVATOR.

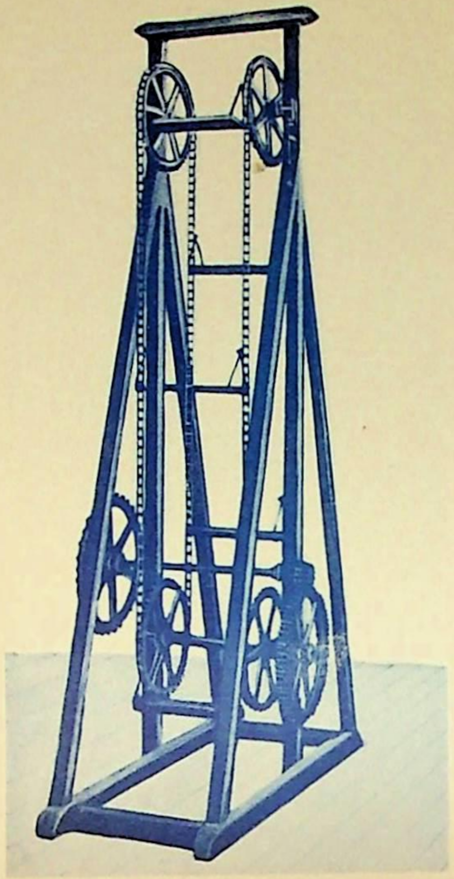
THE HEAVIER FORMS OF THESE DEVICES, AS SHOWN ON THE RIGHT, ARE IN OPERATION IN SEVERAL WAREHOUSES IN LARGE CITIES, HANDLING ALL VARIETIES OF FREIGHT WITH GREATER RAPIDITY AND CONVENIENCE THAN THE ORDINARY PLATFORM ELEVATORS.

THE ELEVATOR CONSISTS OF A SERIES OF SWINGING TRAYS MOVING BETWEEN TWO PARALLEL STRANDS OF CHAIN FROM WHICH THE TRAY ARMS ARE HUNG, THEREBY KEEPING THE TRAY LEVEL AT ALL TIMES, ADMITTING THE ELEVATORS TO BE RUN EITHER VERTICALLY OR AT AN INCLINE.

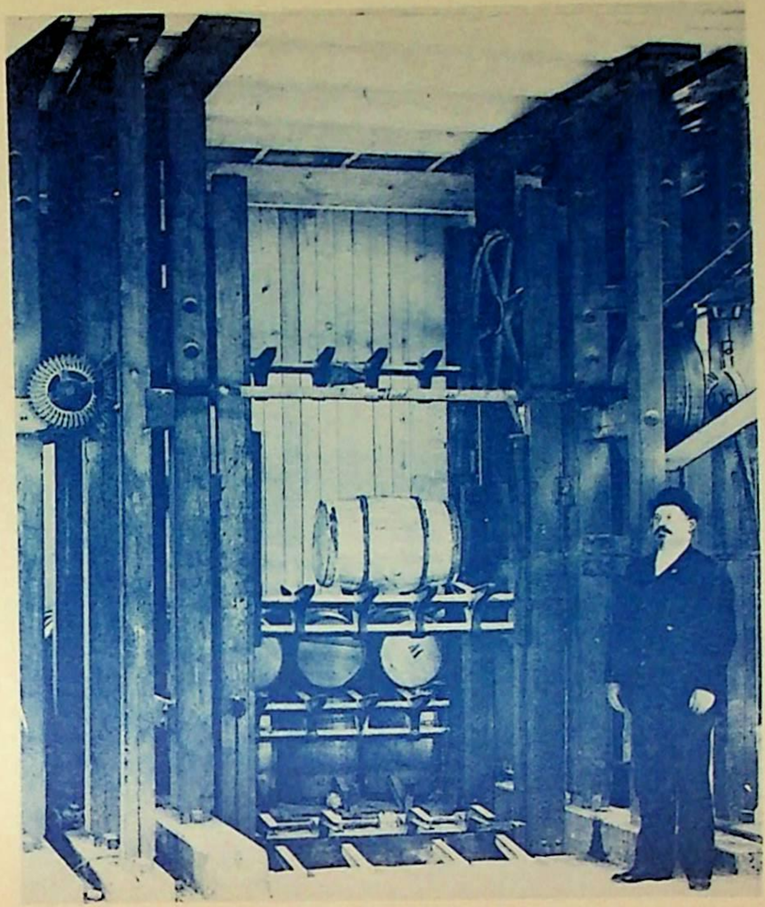
WE CONSTRUCT A MODIFIED FORM OF THIS ELEVATOR FOR HANDLING HEAVY MATERIALS WHICH HAS NO TRAYS, BUT MERELY STRONG PROJECTING LINKS WHICH TAKE HOLD OF LUGS ON THE SIDES OF BOXES OR BASKETS IN WHICH THE MATERIAL TO BE ELEVATED IS PLACED.

THESE BOXES WHEN HEAVILY LOADED MAY BE MOUNTED ON WHEELS AND RUN ON TRACKS TO AND FROM THE ELEVATOR.

ELEVATORS OF THIS KIND HAVE PROVED PARTICULARLY SERVICEABLE IN FOUNDRIES, ELEVATING PIG IRON TO THE CUPOLA CHARGING FLOOR.

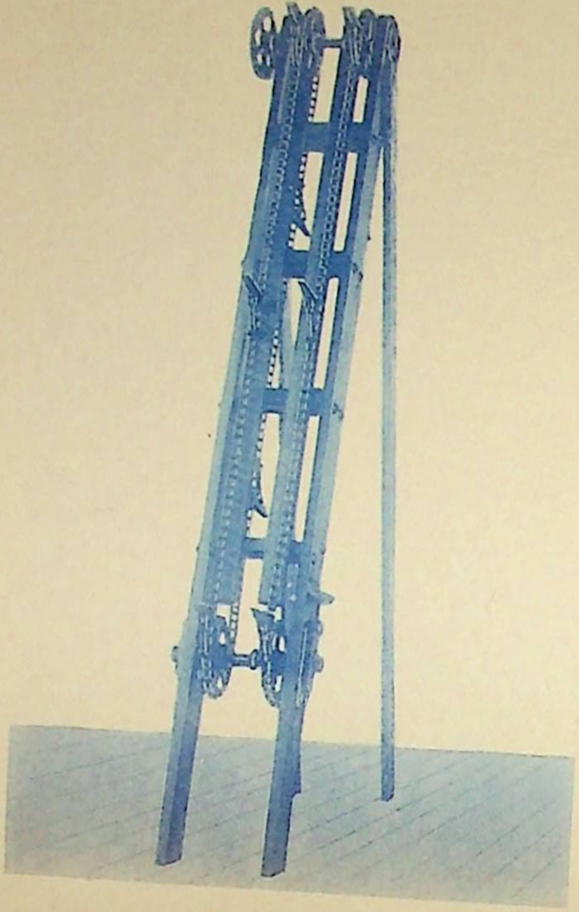


Light Package Elevator.

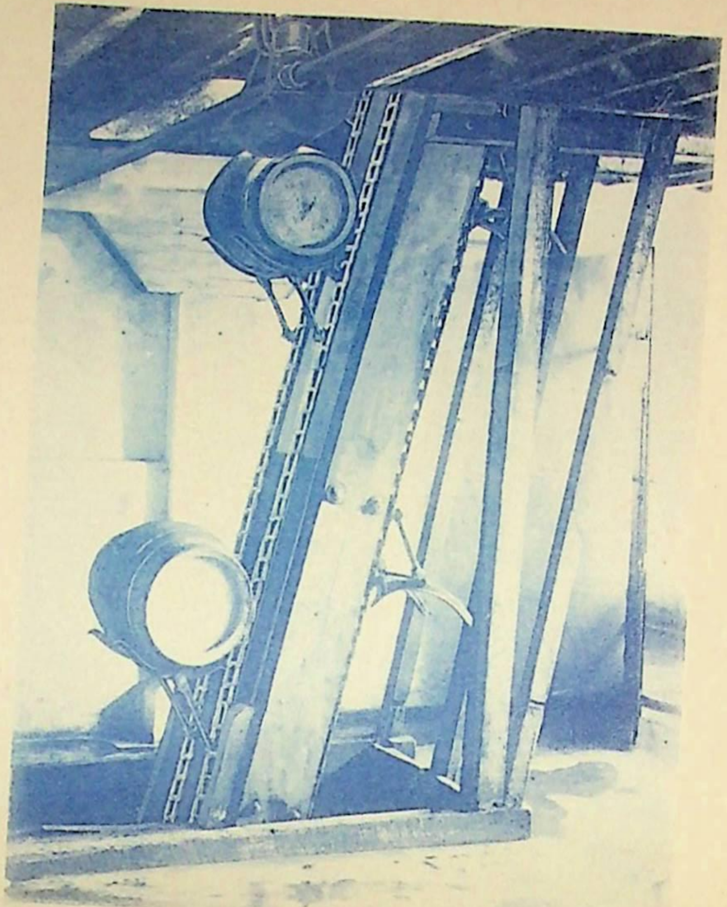


Freight Elevator.

SWINGING TRAY ELEVATORS.



Straight Arm Elevator.



Curved Arm Elevator.

RIGID ARM ELEVATORS.

Rigid Arm Package Elevators

RIGID ARM PACKAGE ELEVATORS ARE LOADED AT ANY CONVENIENT POINT UPON THE ASCENDING SIDE, AND DISCHARGE THEIR LOADS OVER THE HEAD OF THE ELEVATOR. THESE CARRIERS HAVE A WIDE RANGE OF USEFULNESS, AND HANDLE MATERIALS NOT LIABLE TO BREAK—FROM SPOOL YARN TO LOGS FORTY FEET IN LENGTH- AND MANY ARE IN USE ELEVATING BALED HAY OR COTTON, JUTE, BOXES, LEATHER, BARRELS, SACKS, LOGS, ETC. THEY ARE MADE WITH EITHER LINK-BELTING OR TUBULAR CHAIN, AND WITH EITHER STRAIGHT OR CURVED ARMS, AS THE CASE REQUIRES, AND APPEAR IN A LARGE NUMBER OF FLOUR MILLS, BREWERIES, WAREHOUSES, SUGAR AND OIL REFINERIES, AS WELL AS IN MANY OTHER INDUSTRIAL ESTABLISHMENTS.

Automatic Package Elevators

(PATENTED)

THE AUTOMATIC PACKAGE ELEVATORS, ILLUSTRATED OPPOSITE, WILL TAKE ON AND DELIVER BARRELS, SACKS OR PACKAGES AT ANY POINT DESIRED ON THE ASCENDING SIDE.

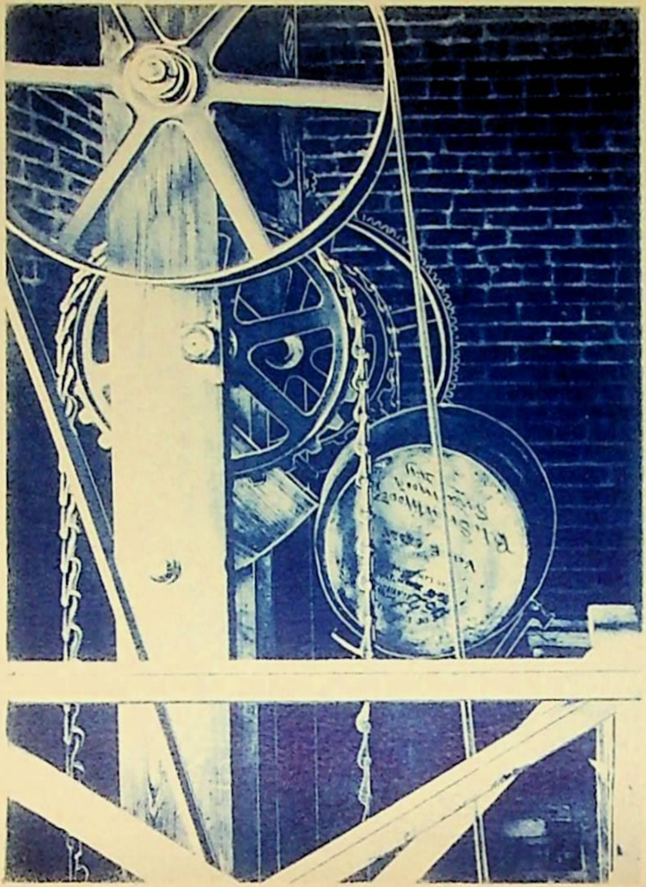
THE PICTURE ON THE RIGHT SHOWS THE TRIPPING ARM VARIETY IN THE ACT OF DISCHARGING, AND WHICH IS OPERATED BY TRIPS PLACED AT DESIRED POINTS ALONG THE GUIDES. AFTER PASSING THE TRIPS, THE ARM RIGHTS AND LOCKS ITSELF.

SEVERAL FORMS OF THESE AUTOMATIC ELEVATORS ARE IN USE HANDLING FREIGHT IN THE WAREHOUSES AND ON THE PIERS OF THE RAILROADS AND TRANSPORTATION COMPANIES IN AND AROUND NEW YORK CITY AND CHICAGO, AS WELL AS IN SUGAR REFINERIES AND ELSEWHERE.

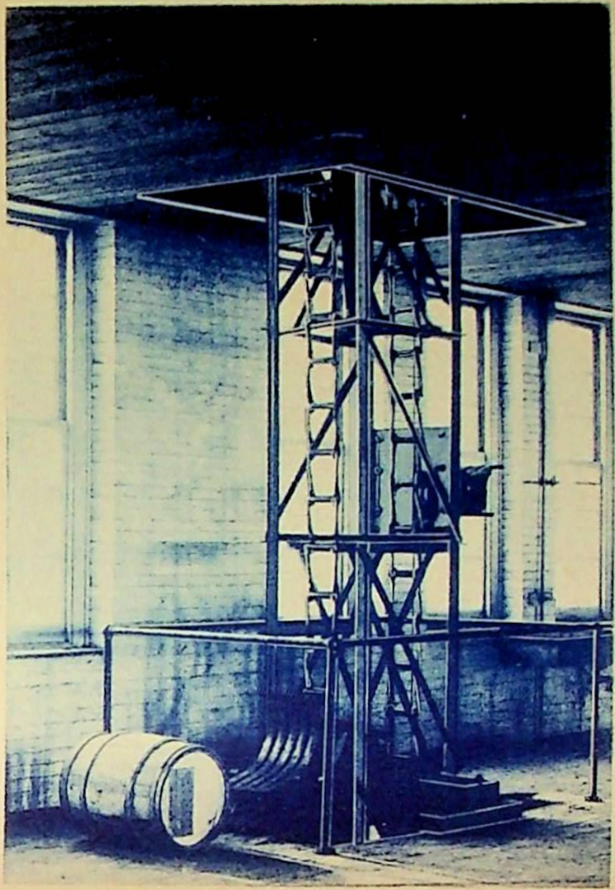
THE AUTOMATIC CRADLE FORM OF THESE ELEVATORS, AS ILLUSTRATED ON THE LEFT, WILL ALSO TAKE ON BARRELS AT ANY POINT ON THE ASCENDING SIDE AND DELIVER THEM AT ANY POINT ON THE ASCENDING OR DESCENDING SIDES. IN THIS ELEVATOR THE BARRELS ARE AUTOMATICALLY ROLLED OFF THE CRADLE, THEREBY AVOIDING SHOCK TO THE MACHINERY, WHICH ALLOWS THE ELEVATOR TO BE RUN RAPIDLY, GIVING IT THE GREAT CAPACITY OF SEVENTY BARRELS PER MINUTE.

BOTH OF THE ABOVE TYPES OF ELEVATORS ARE CONSTRUCTED WITH WOOD OR IRON FRAMES, BUT PREFERABLY THE LATTER.

IN THE AUTOMATIC TRIPPING ELEVATOR, THE WELL BUILT, TRUSSED IRON GIRDER FRAME, COMBINED WITH THE AUTOMATIC ARM, OF WHICH ALL PLATES AND BRACES ARE OF STEEL, MAKES AN ELEVATOR FOR HANDLING GENERAL FREIGHT, THE UTILITY AND CONVENIENCE OF WHICH ARE OBVIOUS.

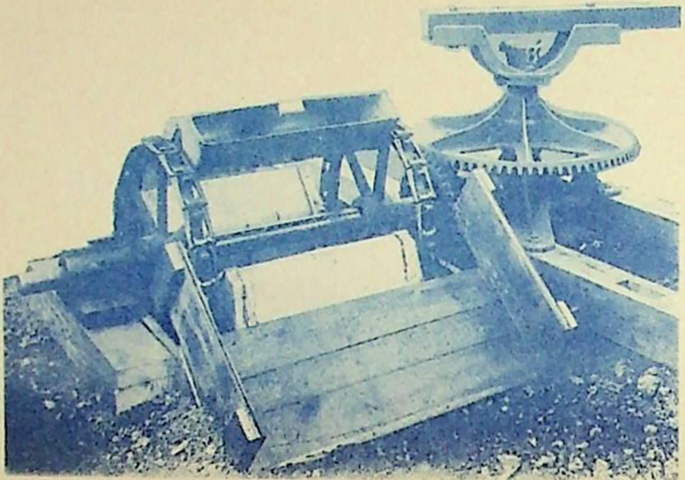


Contact Discharge Elevator.

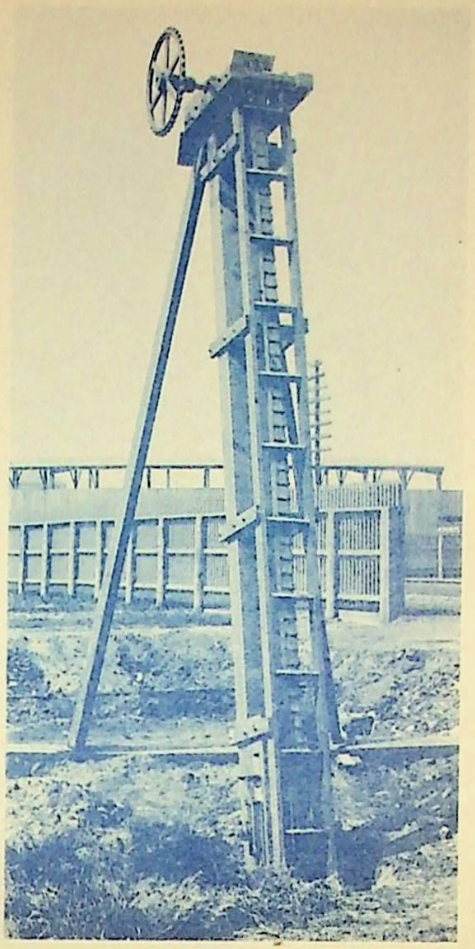


Tripping Arm Elevator.

AUTOMATIC DISCHARGE BARREL AND SACK ELEVATORS.



BUCKET WATER ELEVATOR.



BOX WATER ELEVATOR.

Link=Belt Water Elevators

OUR WATER ELEVATORS ARE OF TWO GENERAL TYPES, WHICH ARE HERE ILLUSTRATED, AND ARE INTENDED TO BE OPERATED BY EITHER HORSE OR STEAM POWER.

THESE ELEVATORS ARE PARTICULARLY SERVICEABLE FOR IRRIGATING AND DRAINAGE PURPOSES, AND WHEREVER WATER IS TO BE RAISED TO A MODERATE HEIGHT. ELEVATORS OF THE BOX TYPE, AS SHOWN ON THE RIGHT, CONSIST OF A SERIES OF FLIGHTS, CLOSELY FITTING AND MOVING IN A TIGHT BOX, THEREBY USING BUT LITTLE MORE POWER THAN WOULD BE REQUIRED TO THEORETICALLY RAISE A GIVEN AMOUNT OF WATER IN A SPECIFIED TIME.

WE HAVE CONSTRUCTED THESE ELEVATORS WITH CAPACITIES UP TO 200,000 GALLONS PER HOUR, AND ARE PREPARED TO CONSTRUCT THEM OF LARGER CAPACITIES, IF DESIRED.

THE BUCKET ELEVATOR, SHOWN ON THE RIGHT, IS PARTICULARLY SERVICEABLE FOR ELEVATING WATER FROM WELLS, AND OWING TO THE DETACHABLE FEATURE OF THE CHAIN, CAN BE READILY LENGTHENED AS THE WATER RECEDES.

THE BUCKETS ARE SO CONSTRUCTED THAT THEY READILY FILL AND DISCHARGE WITH A MINIMUM AMOUNT OF WASTE.

WE CONSTRUCT, AND CAN FURNISH FROM STOCK, THE SLOW SPEED ARCH HORSE POWER, WHICH IS ESPECIALLY DESIGNED FOR USE WITH THE BUCKET ELEVATOR.

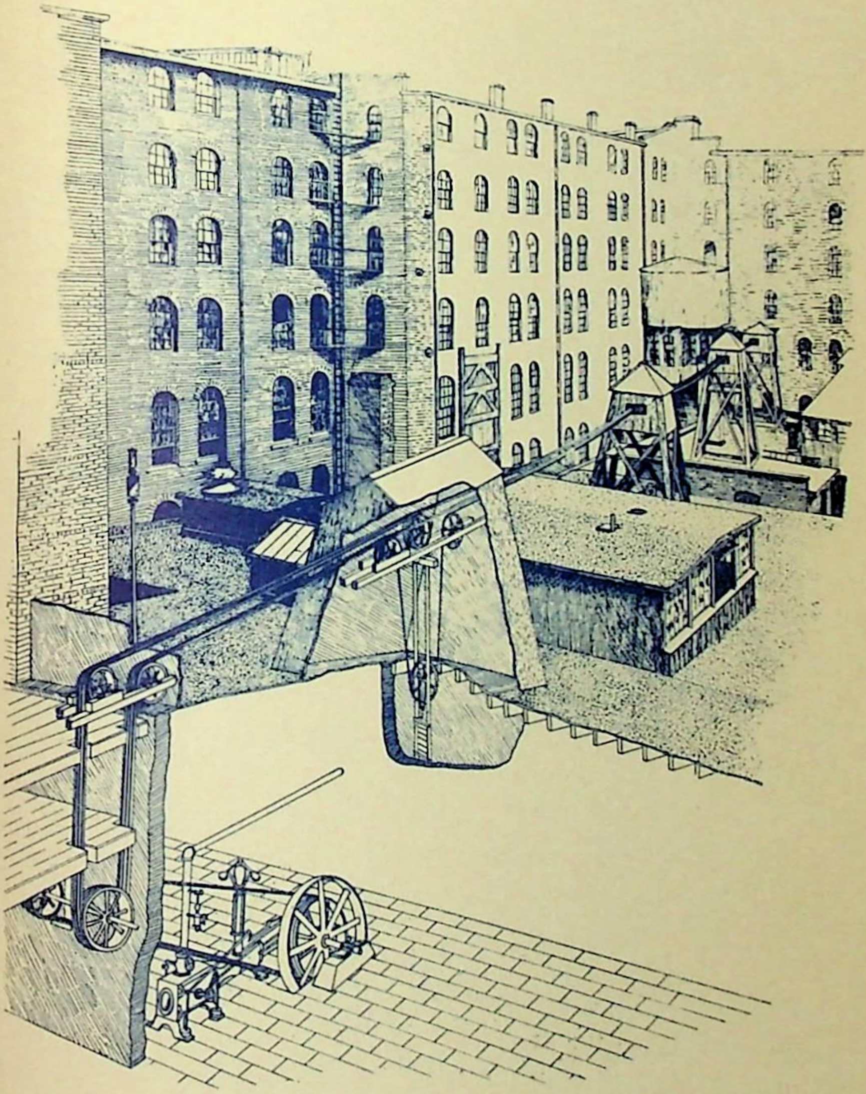
PRICES QUOTED UPON APPLICATION.

Transmission of Power by Manila Rope

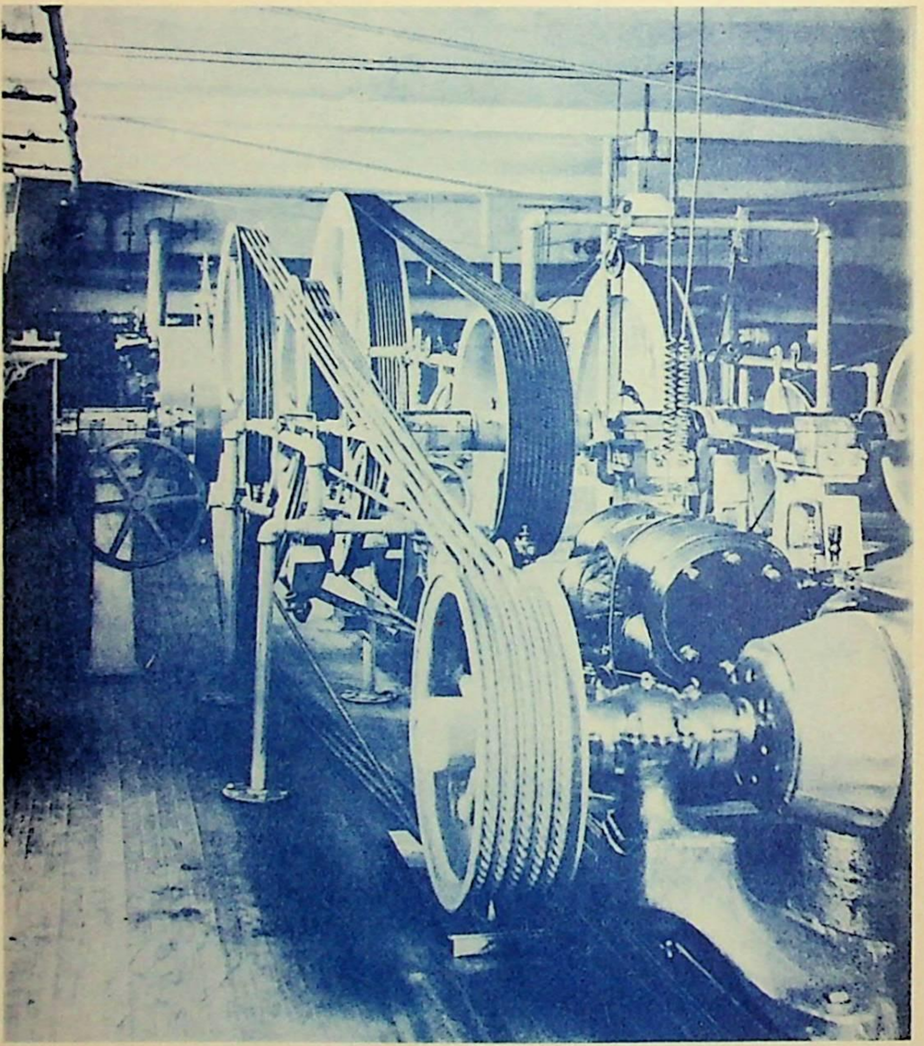
The transmission of power by means of manila rope is, on account of its many desirable qualities, rapidly coming into general use, and is displacing rubber and leather belting, and, in many cases, shafting and gears.

The advantages are, that it is cheaper in first cost and cheaper in cost of maintenance. The ropes may be led in any direction and made to turn any number of corners. It is noiseless, and does not require exact alignment, an especially desirable feature where there is a chance of settling or springing of floors, due to a changing or unequal load.

Our system uses a peculiar multiple-grooved metal sheave, made to conform to standard gauges, insuring exact uniformity of pitch diameter of the different grooves of the same sheave, thereby avoiding unequal strains of one strand upon the other, and an automatic tension carriage, which maintains a constant tension upon the rope; consequently, slip is avoided, and changes in temperature or humidity do not affect the drive, which may be run partially within, and partially outside of, buildings.

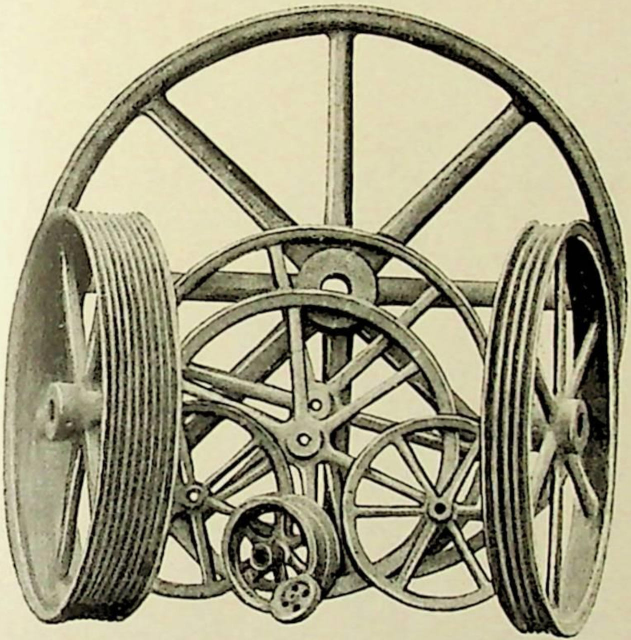


125 H. P. MANILA ROPE POWER TRANSMISSION AT WORKS OF MICHIGAN STOVE CO., DETROIT.



175 H. P. MANILA ROPE POWER TRANSMISSION, DRIVING DYNAMOS
IN VIRGINIA HOTEL, CHICAGO.

Rope Sheaves and Idlers



For the economic operation of rope-transmission machinery, it is imperative that the installation should be properly designed; and having had a wide experience in designing and installing complete and successful outfits of this kind, in which from 2 to 1000 h. p. is transmitted, we are equipped and prepared to construct power transmission machinery of the highest efficiency.

Sheaves and Idlers for Rope Power Transmissions

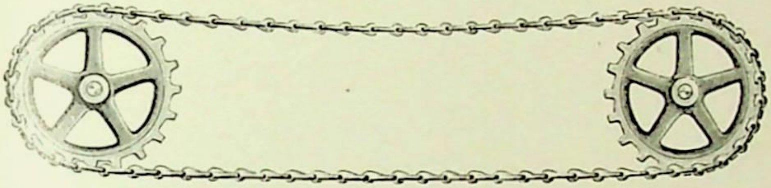
A large and extended experience in the manufacture and erection of Rope Transmissions enables us to offer a thoroughly well-made, accurately turned Rope Sheave of any diameter from 24 inches to 16 feet and any number of grooves required.

We guarantee absolute uniformity of pitch diameter of the different grooves of the same sheave, which is an essential condition of a perfect Rope Transmission.

List of Sheaves and Idlers

Diam. of Rope.	Diameter of Sheaves.												
¾ in. and ⅞ in.	24	26	28	30	32	34	36	38	40	42	44	46	
1 in. and 1⅛ in.				30	32	34	36	38	40	42	44	46	
1¼ in. and 1⅜ in.									40	42	44	46	
¾ in. and ⅞ in.	48	50	52	54	56	58	60	66	72	78	84	90	96
1 in. and 1⅛ in.	48	50	52	54	56	58	60	66	72	78	84	90	96
1¼ in. and 1⅜ in.	48	50	52	54	56	58	60	66	72	78	84	90	
1½ in. and 1⅝ in.	48	50	52	54	56	58	60	66	72	78	84	90	
¾ in. and ⅞ in.	9 ft.	10 ft.	11 ft.	12 ft.	13 ft.	14 ft.	15 ft.	16 ft.					
1 in. and 1⅛ in.	9 ft.	10 ft.	11 ft.	12 ft.	13 ft.	14 ft.	15 ft.	16 ft.					
1¼ in. and 1⅜ in.	9 ft.	10 ft.	11 ft.	12 ft.	13 ft.	14 ft.	15 ft.	16 ft.					
1½ in. and 1⅝ in.	9 ft.	10 ft.	11 ft.	12 ft.	13 ft.	14 ft.	15 ft.	16 ft.					

The Transmission of Power by
The Original Ewart Detachable Link-Belting



The principal value of Link-Belting as a power transmitter lies in the nature of its construction. Being composed of links and used with sprocket wheels, it forms a positive belt, doing its duty with no waste of power from slipping, and the minimum loss of power through journal friction, which latter is a large factor of loss in all flat-belt transmissions. This loss of power through journal friction due to the strain necessary to produce the tension required in all flat belts, is a point which no thoughtful mechanic or engineer overlooks at the present day.

Where the power is to be transmitted at a slow rate, Link-Belting is far superior to anything else, and under favorable circumstances it has been run at the rate of 2,000 feet per minute.

Where it is desired to run one shaft at right angles to another, we can furnish Link-Belting which will run at a quarter twist, provided the shaft centres are not too close together.

In ordering Link-Belting to run in this manner, give distance between centres and all conditions under which it is to operate, as it is prepared by special machinery for each case.

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Power Transmitting Machinery

Is the title of a catalogue issued by us describing and listing the general machinery for the transmission of power. It contains lists of shafting, gears, pulleys, hangers, couplings, collars, clutches, etc.

The Transmission of Power by Manila Rope

Is fully and interestingly described in our special catalogue relating to this subject.

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